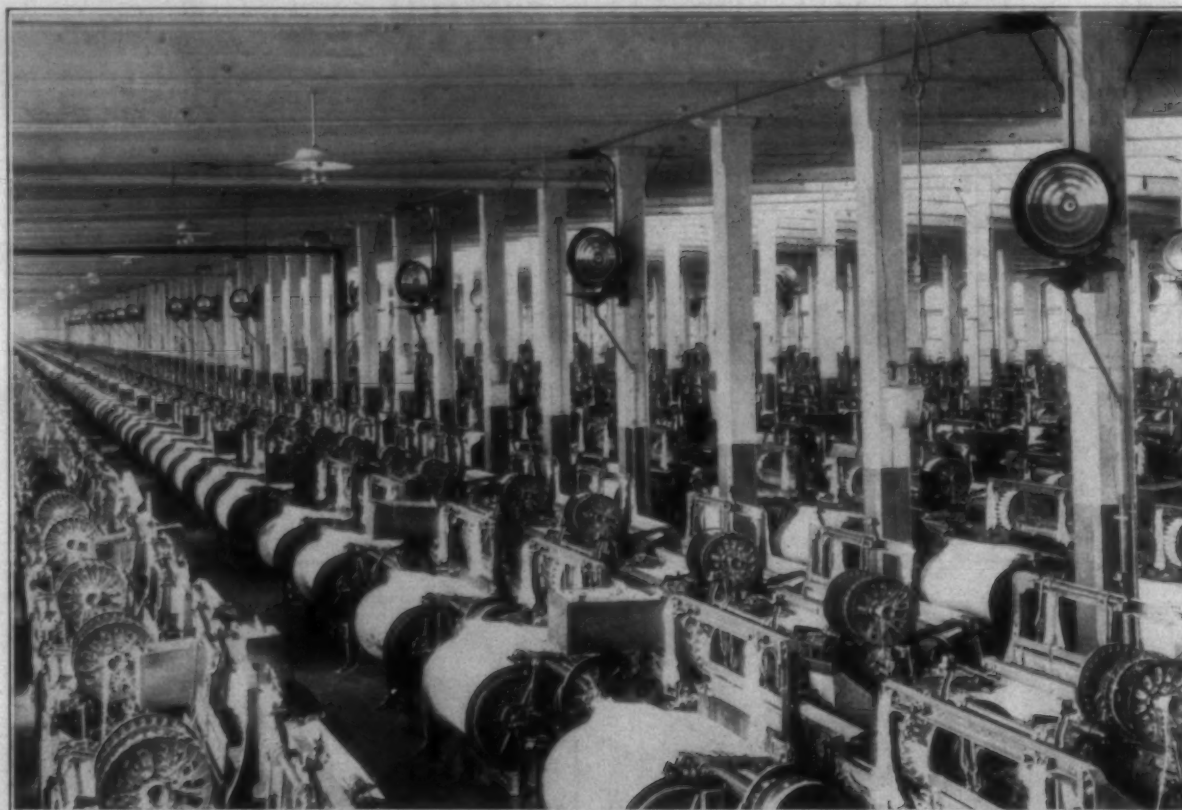


SOUTHERN TEXTILE BULLETIN

VOL. 30

CHARLOTTE, N. C., THURSDAY, MAY 27, 1926

NUMBER 13



An Installation of BAHNSON Humidifiers in One of the Largest Weave Rooms in the South

A BAHNSON SYSTEM of Humidification installed now will keep the work running smoothly during the dry summer days.

Maximum efficiency, Dependable Automatic Humidity Control, Economy of Operation,—you get them all in a BAHNSON SYSTEM.

May we discuss with you the suitability of BAHNSON HUMIDIFIERS for your mill?

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New York Office: 93 Worth Street

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15 years experience in making Loom Reeds.
Each year some improvement. Ask almost
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them?

Charlotte Manufacturing Co.

Card Clothing and Reeds

Charlotte,

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Satisfaction—

THE J. H. WILLIAMS CO.



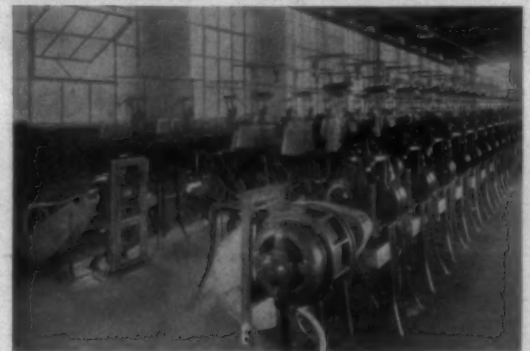
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Charlotte, N. C.

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5 H. P. Morse Silent Chain Drives from motors to
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178 r. p. m., 27-inch centers.

Permitting the closer spacing of
machines, Morse Textile Mill
Drives make for greater produc-
tion and better working condi-
tions.

98.6% efficient, positive, flexible.

Over 5,000,000 H. P. have been in-
stalled in almost every industry
and many are still serving after
15 and 20 years of use.

Booklet "A Chain of Evidence
from Textile Mills" on request.

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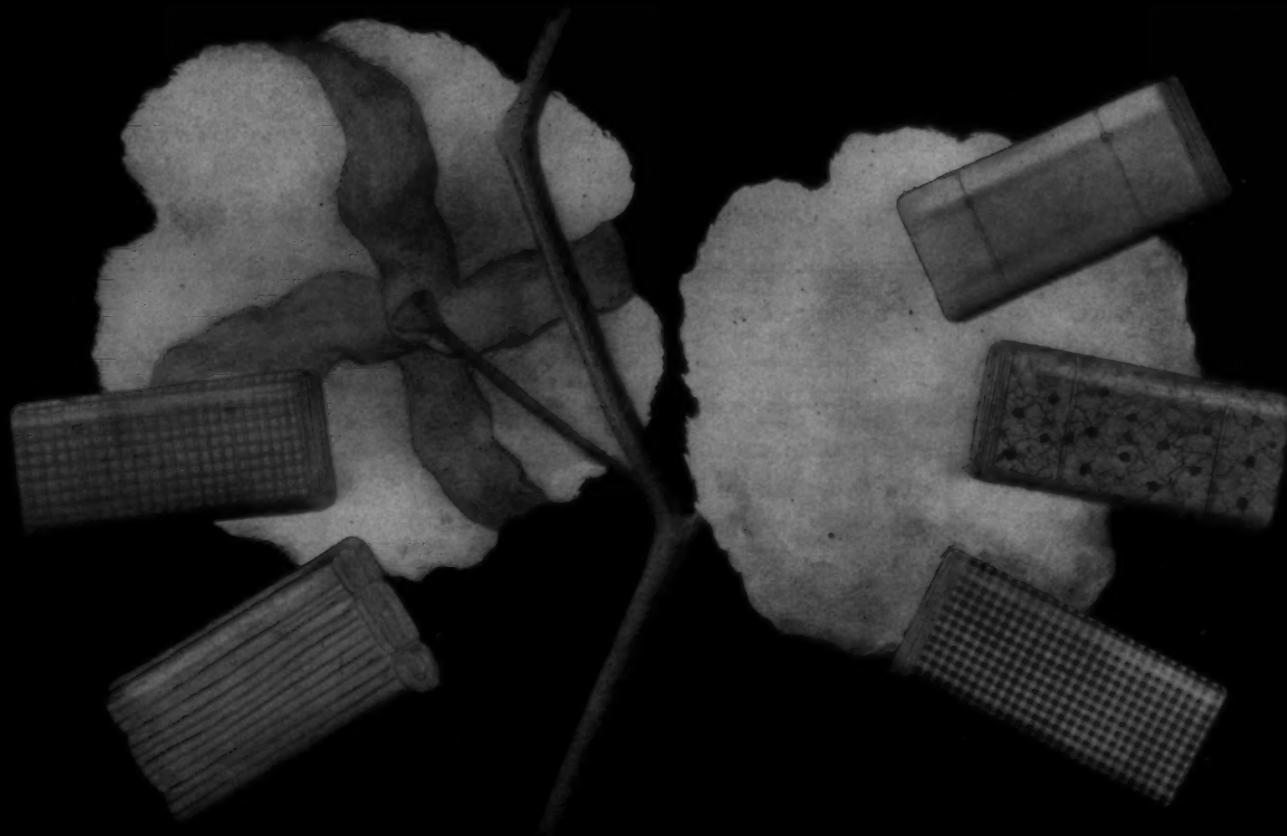
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The Economy of Adequate Humidification

ParkSpray Humidification Means Money for You

Striking Balances

So then, we have climate to contend with; the climate of geography and the climate in each mill that is incidental and internal—and individual.

The only way to make humidifying economical is by means of evaporation and air change.

You remember I told you of other factors which greatly affect the quantity of vapor we shall have to produce—such as exposure, width, height, construction, etc. Even the points of



compass are not to be disregarded, for the sunny side of a mill is warmed to an appreciable extent. Shade has a slight cooling effect.

Flat, black tar roofs absorb a tremendous amount of heat from the sun. Adjacent open water causing slightly higher moisture content in the entering air makes our "make-up" problem a little easier. In low-posted rooms the percentage of heat per cubic foot is considerably greater than in a high-posted mill.

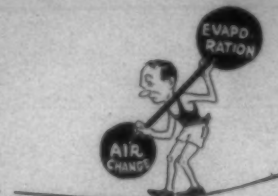
All of these factors must be taken into account in designing the proper system of adequate and economical humidification.

And yet under average conditions 85% of the water required to obtain the desired atmospheric conditions in a spinning room is used to absorb the frictional heat of the machinery. I have told you that before—but I want to emphasize it again.

So then—if we depend on air change alone we are out of luck. Using evaporation as we do partly for humidification, we must provide

some way for the evaporated moisture to escape to get the cooling we want. The train is loaded and must be moved to do any good—and make a place for another train to be loaded, to be moved, to make a place for another and still another.

The economy of adequate humidification comes in using these two forces—evaporation and air change—and getting them into balance.



The more water added (with the same air change) the lower the temperature of our plant will be. The limit of low temperature (you never could reach it) will be the outside wet bulb temperature; at the same time the humidity will be higher—approaching saturation as a limit.

With allowances for all these local conditions, the cooling effect of humidifiers varies with their evaporative capacity; varies with the pounds of water we can get the air to take, at the condition wanted. But always remembering that they must be "in balance" with the proper air change.

Now is there more to this 'ere business of humidification than you thought? Why we haven't begun!



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Canadian Agents, W. J. Westaway Company, Ltd.
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Adequate Humidity means adequate capacity. Capacity means gallons.

In gallons of water evaporated, ParkSpray equipment is the lowest in price.

How to outwit the shiner

BRIGHT picks, or shiners, are due not to faulty finishing, but to lack of uniformity in the yarn. This, in turn, may be caused by uneven tension in winding; but usually it is the result of imperfections inherent in the very structure of the yarn.

Celanese brand yarn, unlike rayon, is conspicuous for its uniformity. It never varies in denier more than one per cent, and it is completely free from the usual imperfections. Celanese brand fabrics are therefore absolutely regular in appearance; their rich, glowing beauty displays not the slightest blemish.

To outwit the shiner, to save trouble and losses, and to speed up production—use Celanese brand yarn and fabrics.

Celanese brand yarn is neither silk nor rayon. It has distinctly different properties from rayon. ¶ It is highly elastic and remarkably durable; and it has unique hygienic qualities. ¶ Dyed with its special SRA dyes, it is fast to sun, suds, salt-water and perspiration. ¶ Even in a plain fabric no shiners are ever found when Celanese brand yarn is used.

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SOUTHERN TEXTILE BULLETIN

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Our Cotton Industry's History and Outlook

DURING the last two years of depression in the textile trade, we have all read or heard discussions giving the reasons for it, and usually the conclusions are that the cotton mills located in the New England States will gradually close their doors, due to the lower cost competition from mills located in the cotton-growing States, and further, that we have too many cotton spindles in this country, the number of which must be reduced.

If he will study the history of the textile industry in America, and realize the enormous advancement made in the cotton manufacturing branch of the industry since the days of Samuel Slater, anyone connected in any way with its growth cannot help but feel a sense of pride in progress made. The cultivation and conversion of cotton into cloth has been traced to several hundred years B. C., but very little progress was made previous to the flying shuttle, in spinning or weaving of cotton mechanically, until inventions were commenced during 1733; then the rapid advancement was made through the introduction of the carding machine, spinning jenny, spinning machine with drawing rollers, spinning mule and power loom, all of which was due to English enterprise and covers the period up to the construction of machinery by Samuel Slater and installed in his factory at Pawtucket, R. I., in the year 1790.

More rapid progress was made and production increased many fold following the invention of the cotton gin by Eli Whitney, three years later. It was, however, about one hundred years ago that American inventive geniuses began contributing towards the development of machinery that resembled in any way the modern cotton mill equipment, and it was not until 1830 that Addison and Stevens, of New York, patented a traveler or wire loop sliding on a single ring, from which the present form of ring-spinning frame originated.

It is said that no change has been made in the principal workings of cotton in the various operations, and that the machinery as it is manufactured today is improved only in refinements and greater operating speeds. For a comparison we find that in 1812, little more than one hundred years ago, there were in

(Paper read recently before the Falco Cotton Club of the Farr Alpaca Co., Holyoke, Mass., by Joseph H. Windle, Northern and export agent of the Fales & Jenks Machine Co., Pawtucket, R. I.)

operation in the vicinity of Manchester, England, 4,600,000 spindles, and that they employed 500,000 operatives, or an average of nine spindles per operative. This can be compared with present-day conditions in the city of Fall River where we have today about 3,400,000 spindles, requiring only 27,000 operatives, or at the rate of 130 spindle per operative.

We must consider the fact that we have, in all countries of the world, a total of 160,000,000 cotton spindles installed, 38,000,000 of which are in the United States, one-half of our spindles having been installed during the last thirty years, which is by far the largest increase of any country in the world in the same period. While England has a spindleage of 57,000,000 today, we must remember that that country retained many advantages, such as better machinery, skilled labor, and long years of merchandising, which enabled her to obtain and hold an immense export trade, and it is only during the last thirty-five years that our machinery, labor, and ability to sell our goods in foreign countries could be compared with the superiority of the English cotton trade.

We, in this country, with our population of 100,000,000, consume the product of approximately 30,000,000 spindles, so that it is apparent we must enter the export trade and sell in the foreign markets the over-production, or about 20 per cent of our cotton goods production, to keep our mills operating. Considering the above, the question arises as to how we are going to continue our growth, as we have done up to the present time, in the face of the fact that our labor costs are so tremendously out of proportion to the prices paid for labor in foreign countries, for unless we find new uses for large quantities of cotton goods, all of our increases in production must be sold outside of the United States.

Our greatest handicap is the high labor cost of goods that we export, which must be sold in competition with cotton goods made by the low cost labor in foreign countries. A comparison would be about as fol-

lows: The average mill operative in China is paid about one-twentieth of the pay received in this country; in Japan, about one-tenth; France and Italy about one-fourth; and in England, about one-half. However, we can eliminate entirely at this time any competition from China, as that country with its 400,000,000 inhabitants has about 3,000,000 spindles, and necessarily is, therefore, an importer of large quantities of cotton goods, and will remain in that condition for many years. We however, are compelled to meet some competition from Japan, and more or less from France and Italy, but our greatest competitor by far is the English manufacturer, who has an advantage of manufacturing with labor costing about half as much as ours.

This condition might appear an insurmountable obstacle, but fortunately the item of labor averages only about one-sixth the entire cost of finished cotton yarns, and cloth, yet this item is of serious consequence, as we are competing with a manufacturing nation equal to and with longer experience in the three most important items of machinery manufacture, skilled labor and merchandising ability. Therefore, in order to obtain and keep foreign markets for American goods, it is obvious that we must be able to complete and sell our goods of the same grade and quality at the same or lower price.

To take a concrete example of average cost of a mill today in the New England States, making 28s warp yarn, a summary would be about as follows: Labor cost \$.0734 per pound; overhead and fixed charges \$.0580 per pound; raw material (cotton) less waste, \$.2886 per pound; total cost, 42 cents per pound. The last two items of overhead or fixed charges and raw material (cotton) cost we can eliminate entirely from this discussion. No country in the world is more favorably situated than we are in this respect. You can build a mill of the same durability at equal cost or less. Our mill engineers are rated as highly trained specialists, and recognized as the best talent to be obtained any-

where. Your machinery manufacturer has now surpassed the foreign manufacturer, as is evidenced by the elimination of practically all imports of cotton machinery during recent years, for today every machine from the opening of the cotton to the winder or loom, is designed with the one idea to eliminate manual labor, making its operation dependent more upon the skill and training, not only to the operator, but also upon its supervision.

Another fact, and I believe the greatest asset which we as a nation, do not always appreciate and give due credit, is our position as the greatest cotton-producing country of the world. Of the approximately 22,000,000 bales of cotton grown annually, we produce in our cotton-growing States 65 per cent, which includes (with the exception of the Egyptian crop) practically all of the finest spinnable cotton grown in the world and the industry as a whole is indebted in no small way to the cotton planters in maintaining over successive years the high qualities and improvement of the cotton staple of America, and for the agricultural knowledge and skill required to obtain an average yield of 160 pounds of lint cotton per acre, compared to 90 pounds and 60 pounds yield per acre, in India and China, from which countries the majority of the balance of the world's cotton crop is produced, the staple of which is of much inferior quality.

In close co-operation of our cotton manufacturer and cotton grower, we have surely a factor giving a decided advantage in the greatest item of cost, that is, raw material representing about 65 per cent of the total per pound. In the item of labor cost we have a more difficult problem, as we have no natural advantage such as we find in growing our own cotton at home, nor can we consider greater production or better machinery equipment, for although our improvement and progress as machinery manufacturers is devoted to the advantage of cotton mills in the United States, we do grow some 6,000,000 bales of cotton over our requirements, and the several machine builders can produce more machinery than the cotton industry of our country will purchase. Therefore, it is obvious that other cotton manufacturing nations can and do purchase, a good part of our cotton

(Continued on Page 31)

The Story of Cotton

On account of its very interesting observations relative to the early history of cotton and cotton manufacturing, we are printing material copied from a small book, published about 1870, in London, Eng., by the Society for Promoting Christian Knowledge. As the book was not copyrighted and is now evidently out of print, we feel a liberty to give its contents to our readers, many of whom will be interested in the early history of the industry.—Editor.

(Continued from Last Week)

It may be remembered that, at a certain period of the cotton manufacture, weaving was a speedier process than spinning, and that the difficulty lay in supplying the looms with yarn. But the inventions of Hargreaves, Arkwright, and Crompton, made a change in this respect. When countless spinning-jennies, water-frames, and mule were at work, the looms lagged behind, unable to deal with the enormous quantity of cotton yarn which those machines produced. It was plain that something must be done to quicken the pace of the looms—they in their turn must learn to work faster.

The improvement in weaving was made by Mr. John Kay. He discovered a way of throwing the shuttle which enabled the weaver to produce nearly double the quantity of cloth he did before in the same time, and to make it of any width that he pleased. He brought his invention to his native town of Bury, A.D. 1738. The cloth-weavers adopted it at once, but though equally adapted for the cotton trade, it was not much used there for some time. On the whole Kay was looked upon with an evil eye. The old fear of being deprived of work, in consequence of improvements in machinery, came strongly upon the weavers of Bury. They did everything in their power to annoy their fellow-townsmen, and at last fairly drove him not only out of the town, but from England. Kay died an exile at Paris.

Happily, persons who are possessed of an inventive genius are seldom daunted by the bad treatment which former inventors have received at the hands of mankind. One little improvement after another was made in weaving, though it was still carried on by the hand-loom alone, in small sheds belonging to private houses, or in the cottages of the weavers. In parts of the country where weaving used to be carried on, we still observe the bow-window in which the loom used to stand, or the upper storey amply lighted by windows too large and too numerous for bedrooms, and we recognise houses formerly inhabited by weavers. But it was not possible to make the hand-loom a very rapid worker. Some power stronger than the weaver's hand was needed. As early as 1678 Desgennes, a clever French machine maker, devised the plan of working a loom by water-power, and his scheme answered very well—upon paper. He could not make it really effective, nor could any one else.

Nearly a hundred years afterwards, a party of Manchester manufacturers met by chance at Matlock in Derbyshire, and talked of the imperfection of the looms then in use, and the difficulty of weaving up the cotton which was so readily spun by the new spinning-machines. A clergyman who was present said that if a more powerful and efficient machine was needed for weaving, it certainly ought to be invented, and he did not see why it should not be. This clergyman was a Dr. Cartwright; he had been educated at Oxford, and had published a volume of poems, but had never paid any attention to mechanics. Now, however, the subject of weaving by machinery took possession of his mind. He had never seen a loom in his lifetime, but it appeared to him that in plain weaving there were only three movements following one another in succession, and he thought there could be no great difficulty in producing and repeating them. So he employed a carpenter and a smith to construct a machine upon his principles, and getting a weaver to put in the warp, a piece of cloth was woven before his eyes. We imagine how great was his delight. The only criticism passed upon his invention was that the machine was far too powerful. The reed fell with a force of at least half a hundred-weight, and the springs which threw the shuttle are said to have been strong enough to have thrown a congreve rocket.

Dr. Cartwright lost no time in securing by patent what he rightly thought was a valuable invention. Then he condescended to see how other persons wove, and was quite astonished at their easy mode of operation compared with his powerful machine, which was indeed a young giant.

Some time afterwards he showed his loom to a manufacturer, who remarked that it was a very ingenious machine, but only fitted for simple weaving. "It never could be made," he said, "to weave checks of any sort of fancy pattern." Dr. Cartwright made no reply to the manufacturer's observation, but a few weeks later he showed him a piece of muslin beautifully woven in checks by machinery.

There were difficulties however in bringing the new loom into actual use. Some alterations had to be made before it could be worked with any profit, and a manufactory, which was built to contain five hundred power looms, was burnt to the ground and destroyed with them. In the year 1801 they began to be generally employed in cotton factories, but this was the very year which Dr. Cartwright's patent expired. The loss consequent upon the lapse of the patent was however made up to the inventor by a grant from Parliament of £10,000. Every year which has rolled by has been marked by a more extensive use of the power-loom. Carpets, broadcloths, linen, calicoes, muslins, all are woven now by its strong agency. Put in

motion first by water-power, it has long been moved by steam. A steam-engine of forty or sixty horse-power works four or five hundred of these looms, besides doing a good deal of other business as well. This gigantic weaver does not stand in need of much help from man. It undertakes and faithfully carries out all the heavy work putting shafts, wheels, and pulleys in motion, of throwing the shuttle, working the treadles, driving home the weft, and turning round the warp and cloth-beams. One man may, with such an ally, get through as much weaving as would have occupied two or three hundred men ninety years ago.

As we look back upon the lives of the several men who, by their successive inventions, worked in these latter days of the world such changes in the mode of spinning and weaving, one thing strikes us very forcibly. They received no sympathy from their neighbours; on the contrary, in almost every case they met with violent opposition. Spinners and weavers and all set themselves against any change, and, taking the law into their own hands, broke out into open riots, and destroyed the machines, which they considered their rivals. This was clearly very bad conduct; it was foolish too, because it was certain to be quite useless. No one looking calmly at the case could imagine that in a civilized country such outbursts could hinder the progress of inventions. No class of the community has a right by violence to stop a fellow-subject from making a machine, or from using it. The laws of the country must interfere and support the inventor. Yet we can hardly wonder at the feelings of the Lancashire people, however much we blame their way of expressing them. They thought that the work was going to be taken out of their hands, the bread out of their mouths; they fancied that ruin was before them.

This has not been the case, yet the introduction of machinery has effected a great change in their position and way of life,—a change which brought a good deal of hardship upon them at first, and still is not altogether to their advantage. Spinning by hand seems tedious work, but it was carried on at home, in woman's best sphere of labour; and if by a day's hard work a spinner could only produce twelve ounces of yarn, and that of inferior quality, she received a fair payment for it. To the woman who was a good deal occupied in the care of her house and children there was this advantage, her spinning-wheel was close at hand, and she could turn any odd half-hour to use very readily. And it must no doubt have been pleasant to feel as important as the spinners were just before the time of Hargreaves and Arkwright, when the weavers were constantly coming to them for yarn, and urging them with entreaties and pretty presents to work their very best.

Again there can be no doubt that the hand-loom was a great help, a source of additional profit to the countryman, who with his sons worked at it when their little farm did not need their care. Nay, those weavers who had only their looms to depend on led for the most part a free, cheery life, if a rough one. They lived in the country or in small towns, and used to fetch the warp and weft from the manufacturers and carry back the finished articles to them. It is said that they allowed themselves a good many holidays, and were ready for any games on the "mosses" or moors around. Their time was a good deal at their own disposal,—no bell called them to work at six o'clock in the morning. Their earnings may now be greater than at that time they were, but the men are not so much their own masters, and their days are passed in crowded factories, not in their own houses.

How far the men and women of Lancashire have gained, how far they have lost by their altered circumstances, who can tell?—but it is very clear who the real gainers have been—the men and women of the rest of England, who buy clothing so much cheaper. Through the large introduction of vegetable wool, and the cheap rate at which it is now spun and woven, the people of England, indeed of the whole world, are supplied with cotton goods at an extremely moderate price. We may buy calicoes now at less than half the price that formerly was given for the spinning and weaving of it alone. In the year 1741 the weaving of a piece of coarse cotton cloth occupied a family fourteen days. For that and the spinning of the yarn fifty-three shillings were given. In 1860 you might have bought such a piece of cloth for twenty shillings.

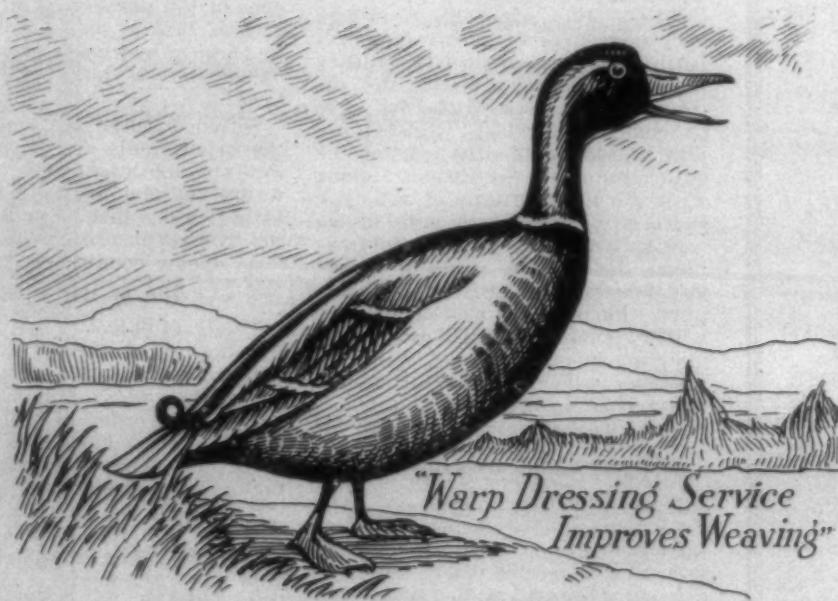
There is a doubt in some minds as to the light in which we should look upon Arkwright, Crompton, Dr. Cartwright, and other inventors of machinery, who, by multiplying the powers which fit and prepare the gifts of God for our use, have increased the wealth of our country, drawn its population together into large towns, and made England a manufacturing and commercial country. Are we to regard them as benefactors or not? Was it in wrath or in mercy to our land that these men were permitted to make these discoveries, to effect these improvements? It may be possible at some future day to give the answer to these questions; at present it would be presumptuous to attempt to do so. We see the gain to our country, we see the loss, but we cannot yet balance them rightly. These inventions have no doubt increased our national wealth, they have also increased our poverty. They have given occupation and high wages to thousands, but in too many cases it is to the women and the children, not to the men. Again, we cannot help grieving to see the villages of England deserted, and their population attracted to crowded spots where they breathe a less

(Continued on Page 32)

ARCY—

A Means of Getting The Most Value From a Dollar's Worth of Starch

ARCY is a product used in warp sizing and cloth finishing for converting ordinary thick boiling pearl starch into a soluble form, the solutions of which are transparent and remain fluid at lower temperatures.



Trademark Reg. U. S. Patent Office

Arcy reduces breaking of companion threads and resultant stoppage of the loom, due to knots. Also the smooth surface of the warp yarns prevents the threads from hanging together in the shed, when the shuttle breaks them.

Manufactured by

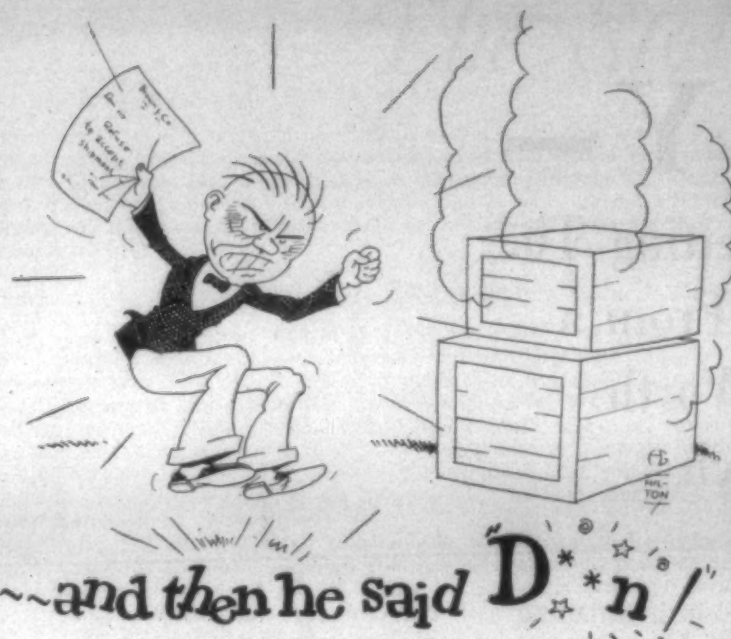
American Rapidase Company, Inc.

Sole Distributors for all Southern States:

DRAKE CORPORATION

Norfolk

Virginia



—and that wasn't all he said by a long shot. A nice little shipment of piece goods all delivered—and then he received this "billet-doux" from the customer:

"Dear Sir: The shipment you sent us on our order 3457 smells to heaven. If we used these goods in making up for our trade, we would lose 75 % of our business.

Your competitors, Blank & Co., always deliver goods without a trace of odor. Why can't you? We are returning this shipment at your expense. BROWN & Co.

NOPCOV ^{for} Finishing

Has No Trace of Odor

You will never have trouble with "smelly" goods and shipments returned, if you use NOPCOV in your finishing operations. Other advantages are:

Smaller quantity used	A better "feel"
A finer lustre	No tackiness
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NATIONAL OIL PRODUCTS COMPANY, Harrison, N. J.

Gentlemen: Kindly send us full information regarding NOPCOV for finishing operations.

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Application of Vat Dyes

THE vat dyes are probably the most difficult of colors to manipulate by the dyer and to apply them as to be at one and the same time level dyed and fast to all the harmful influences which colors are said to be heir to. Great progress has been made in their application, and to some they are no more trouble than any other of the dye products of coal tar. In wool dyeing they may still offer difficulties of great moment, but even here we see them apparently getting into the dyers' work by the back door. That is, there seems today to be a possibility of their extended use by wool dyers by virtue of the new discoveries of recent months of Messrs. Durand and Huguenin and Messrs. Scottish Dyes, Ltd. They look as if they may effect an entrance into the wool piece dyer's practice by applying them as acid colors. In this province of dyeing technology Indigo, by reason of the fact that it does not exhaust, has always been a stumbling block to using other vat dyed in the same bath when dyeing wool. These later vat colors usually exhaust completely (relatively speaking), and further, there is not an exact uniformity of the additions of such other assistants as alkali, etc., as well as of dyeing temperature. This is a great pity, as they are mostly so very fast to the various rigorous tests which they have to come up against, whilst there may be some difficulty in using the anthraquinone derivations along with the Indigoid type of vat dyes, these latter used along with Indigo would give results which would enhance the fastness value of almost any fabric to which they were applied. Perhaps the new departures, whilst perhaps more costly than applying them from a vat, were this possible, will, however, ultimately allow us to see them on wool materials as well as on cotton goods.

Modern Improved Results.

Even in cotton fabrics we have seen considerably easier modes of introducing them to the fibre than were first suggested when they were originally brought before the dyeing world. In those early vat dye days the piece dyer, who was a pioneer in applying them in the trade, had all sorts of difficulties which in some cases became strangely simple ultimately.

They were at first so bad to get level that special jigs had to be improvised in order to be sure that not too early an oxidization of the color took place and the material was therefore kept entirely under the surface of the liquor in the machines which were brought forward. Even today great care is necessary in dyeing with this fast class of colors, but to the one who is applying them regularly most of the difficulties have been washed out of existence where the dyer and his men use proper care.

There are other classes of colors which some may hold are as difficult to apply as the vat dyes, notably the "Ice" colors of the Napthol AS., etc., type, but these are special

dyes which give relatively a limited range of shades, good as they may be.

Indanthrene Blue G.C.D.

In the current number of "Die Textilberichte," G. Hurst and H. Roth draw attention to the well-known member of the vat dye series, Indanthrene Blue G.C.D., and referring to the difficulties of application of the vat colors which experience has permitted us to surmount to such a large extent, they have carried out tests on this, one of the very fastest members of the whole series, with a view to being of some use to those who are applying these colors in large scale quantities.

The color is a dichlor-indanthrene and possesses exceptionally good fastness properties. The Badische Company consider in their tables that the dye is fairly good to chloride and very good to hot vulcanizing. By chloring the dyed shade it becomes greener, but the original tone is regained by "washing" in a weak, cold hydrosulphite bath. Amongst the methods suggested to them, the authors employed for dyeing a light shade, about 10 per cent of the paste dyestuffs, 10 to 12 c.c.s. of caustic soda (40 deg. Be), 1 to 1.5 gms. hydrosulphite conc., and dyeing for ¾ hour at 50-60 deg. Cent.

Softened water was employed for the experiments and freedom from faults which might arise from hard waters thereby ensured. Further, a little Turkey Red oil was added to the dyebath in order to get the best level dyeing conditions.

Aim of the Tests.

The main object of the test was to find the best method of working for giving the best dyed results with vat colors, and what changes should be made in order to effect this by means of the additions made to the bath. The time and temperature factors were also considered and the effect which the caustic and hydrosulphite content have. It is, of course, well known that with poor vats it is recommended to effect an improvement by adding further quantities of caustic and hydrosulphite. It is, therefore, of great interest to know what part the caustic and hydrosulphite play in the course of the dyeing.

The test carried out was as follows: In one litre of water, material was dyed in the bath containing 0.46 gms. Indanthrene Blue GCDN pdt.,

12 c.c.s., caustic soda, 40 deg. Be.,
3.25 gms. Hydrosulphite conc.,
2 c.c.s., Turkey Red oil.

The color was made into a paste with the Turkey red oil and hot water, and allowed to stand for a time.

In order to ensure that the yarn which was used for the test was not oxidized in any way by the air it was cut up into small lengths of about an inch. The whole weighed about 10 grammes. The material was in this way well penetrated and dyed as it would presumably be in

(Continued on Page 35)

HOUGHTON

COTTON MILL ECONOMIES

HOUGHTON'S CYL-TAL will lubricate the cylinders of your steam engines at half the cost, and do it better, and at the same time it will do away with all difficulty arising from oil in the boiler. The cost will be about half the cost of using cylinder oil.

HOUGHTON'S ABSORBED OILS will lubricate all textile machinery, excepting spindles, better and at about one-half the cost of machinery oils, and all difficulties from oil drip will be avoided.

HOUGHTON'S HIGH-SPEED BATH SPINDLE OIL will make possible the operation of about 20 per cent more spindles per horse power than will paraffine oil.

HOUGHTON'S WARP CONDITIONER will penetrate more rapidly; penetrate more evenly; penetrate more deeply and carry with it a heavier load of size than any other product.

HOUGHTON'S RUST VETO will protect polished metal surfaces from rust, both from causes from within as well as from without.

VIM LEATHER BELTING has no quality competitor.

VIM MILL STRAPPINGS last longest.

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HOUGHTON'S TANNERS BELT OIL is the best dressing for vegetable tanned leather belting.

VIM BELT DRESSING (neatsfoot oil base) is the best for VIM Leather Belting.

HOUGHTON'S VITAL MOTOR OIL is in a class by itself and cannot be obtained at service stations. The sort intelligent folks prefer. Makes trucks last longest and causes motoring to become a pleasure.

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Oils and Leathers for the Textile Industry

COTTON MACHINERY

Duplex Carding Device

(HARDMAN'S PATENT)

Can Be Applied to Any Make of Revolving
Flat Card

The object of this appliance is to remove motes, leaf, short fibres and foreign substances from the cotton before it reaches the Cylinder and Flat Clothing.

The removal of these foreign substances from the cotton before it reaches the Cylinder and Flats increases the life of the Card Clothing.

The Cylinder, Doffer and Flat strips taken from a Card which has this Duplex Device applied can be put back into the regular mixing.

This Device has no high speed parts to wear, it is simple in construction and operation, and consequently requires very little attention.

Write for special Bulletin.

Its

Simplicity will appeal to you.

Durability will impress you.

Results will convince you.

Over 5000 of these Devices are in
Successful Operation

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Research in the Field of Cellulose

THE term "cellulose" identifies a primary substance: a form of matter so predominant in the natural order that it might well have been included in the "elements" of the Greek philosophers, says C. F. Cross in Manchester (Eng.) Guardian. It identifies a chemical individual, or rather individuality, for the celluloses are legion, but with a typical conformity qua substance. Lastly, it is a potent factor in and of a supernatural order, the order of the human empire, of which civilization is the goal and measure. In order, which continues the story of evolution, there is, first, the realization of external qualities, in relation to utility; properties apprehended by sense-impressions, then measured, modified, and developed in industrial evolution. Beyond this is the sub-sensible region of science in which the intellect and imagination unite in a work of perception, of further realization and development, but of the ultimate properties chemical and physical, the fruits of which are not in obvious relationship to the antecedent phases. They lead to and result from chemical transformations of fundamental character. Thus cellulose combines directly with nitric acid. The nitrate weighs 75 per cent more than the original cellulose (cotton); but, notwithstanding the large introduction of new matter, the cotton preserves its fibrous form and structural characteristics. On the other hand, it has become a "high explosive." By self-combustion it is totally burned to gaseous compounds many thousand times the volume of the original substance. Further, the nitrates are soluble in various liquids. In contact with these solvents they manifest a high degree of plasticity, and can be drawn to threads of the finest dimensions (artificial silk), to rods or tubes (cordite ammunition), or moulded to forms fulfilling all useful and artistic requirements (celluloid).

The foregoing sketches in impressionist outline the subject of "cellulose," and the three aspects postulated are those of biology, chemistry, and technology.

In relation to our particular section of the subject, the chemistry of cellulose, the formal grammar of "organic chemistry so called, tends to rule out the other sections. The chemistry of the nineteenth century first contradicted, then progressively eliminated, a dogma of the earlier chemists, which affirmed that products of the living organism could not be made in the laboratory. The synthesis of ura (1826), of alizarin (1868), of indigo (1883) are particular examples, and, moreover, landmarks of the more important synthesis of the unitary conception of chemical science.

If in the light of this doctrine the earlier dogma of a dual chemistry falls away as a superstition, it behooves us to remember that although the "Phlogiston" of the earlier chemistry became a superstition in relation to the quantitative conceptions developed by Lavoisier and the exact science of weight relationships,

the growth of which marks the chemistry of the early nineteenth century, it reappears in the term "energy," and the later more comprehensive treatment of the factors of reaction.

We also call to mind that Newton's fundamental conceptions of light underwent eclipse in and through the nineteenth century, to reappear in our time as the basis of the more highly developed analysis of the twentieth century physicists.

In this trend of criticism the term "organic" chemistry as a definition in chemical science connotes a much wider field than the alternative, the "chemistry of carbon compounds." This latter is the neutral term coextensive with actuality. The former implicitly affirms that the compounds which constitute organic—living—matter are unaffected in their ultimate properties by association with the vital processes.

These considerations are little relevant to the presumed purpose of the present symposium. But they emphasize a very practical issue. We have in mind the chemist, and particularly the young chemist, identifying his career with work in the cellulose field, and hoping that in due course his work will contribute to the advance of knowledge and, incidentally, to his own advancement. It is implied in the foregoing that the necessary equipment is a training in all three branches—biology, chemistry, and technology—of cellulose, and the maintenance of these factors in the comprehensive grasp and perspective of the subject identified with its natural history.

In the writer's experience, and especially in respect of the present subject, these branches of science have been mutually exclusive, each pursuing its own main lines of investigation and ignoring, or rather taking no advantage of, the collateral contributions. But these conditions are, or were, of the ancient order. We have now a positive science of biochemistry. The chemist is a physicist in all the more general treatments of his laboratory problems, and the cellulose technologist has to reckon with artificial silk, colloids, and specific constitutional relationships of synthetic dyestuffs.

In this branch the work of the Shirley Institute represents the comprehensive survey. The Biochemical Institutions of Cambridge, Birmingham, and London are centers of investigation of problems in this and closely related fields, which are at once biochemical and industrial. The schools of pure chemistry, notably St. Andrews, are investigating the constitution of the cellulose, by the rigorous methods of the science, applied in systematic development of the classical work of Emil Fischer in this field. These centers of research are selected for mention as sufficient to show that in our own country the future of the chemistry of cellulose is provided for and in capable hands. There is no longer any call for the missionary, for the great British public has, under the persuasion of

the profits of the cellulose industries, been led to take an active interest beyond the expectations of the whilom prophets. Moreover, the interest is world wide and manifest in all sections by competitive activity, in some directions of almost feverish intensity.

Such conditions are perhaps not attractive to the student and embryo philosopher, but the writer's reasoned conviction is that the future in this field belongs to such, and the call of initiation will be, as heretofore, a personal matter probably outside the influence of extrinsic motive. It is evident from the foregoing that there are plain highways of qualification for careers in the "chemistry of cellulose," and that adequate training for executive posts in connection with industrial routine is provided at many of our educational institutions. Some of these will take the student into the more stimulating atmosphere of research created by sustained investigations of problems of critical importance.

We are, however, rather concerned with workers aiming beyond a passing participation in the resolution of sectional problems, to achievement in fundamental theory which in this sphere always translates into industrial progress.

To discover the paths which lead to discovery requires the exercise of considerable critical discrimination. Time was when any prosecutive systematic investigation would lead that way; but the prospectors have been busy and innumerable claims appropriated.

Chemists will recognize that in all processes of transformation of cellulose the physical history of the changes must be established as the correlative of control—cellulose is a complex of undefined magnitude; it is a substance of organized structure which is not merely that of external configuration but a physical condition of the complex as of the component units of remote dimensions which are molecules.

Consistently with this view it appears that the complex may be bonded in terms of a physical effect, to verify which we require to apply known form of energy to produce structural changes, independently of reaction of the chemical order.

The reader may be moved to criticize this expose of a conception as dogmatic and visionary. But it has taken form from a number of particular cases investigated in connection with the processes to which cellulose is subjected in the textile and papermaking industries. The accumulation of working experience of these cases, always exceptional and sometimes paradoxical, has led to a general conclusion that there is an important factor of cellulose constitution as yet undefined, in that sense undiscovered, which invites investigation, and for which the leading suggestion will be supplied from the technical side.

At the present time the writer is engaged on three such investigations, and this experience should be suggestive to the younger generation of workers.

The lines of progress are too well established in other hands and directions to require or justify treatment

in this communication. The results achieved are, in many cases, brilliant, and the only criticism which could be offered is that of appreciation.

But the reminder is necessary that fixed ideas in this sphere are calcuated rather to close the avenues of research. It is a sphere in which the reasoned agnostic attitude based on the broad perspective of the matter will be found to stimulate enterprise, whereas the methods of its three sections in exclusive application tend rather to sterilize the imagination, without which in association with exceptional personal industry there would be little promise of the progress upon which we have endeavored to direct the mental telescope.

Link-Belt Co. holds Fifth Annual Sales School

During the course of a year any large organization finds it necessary to add new men to the sales force. These new men, regardless of their previous experience or training, must be coached in company policies and standards of practice. They must be educated as to machinery design and construction before success as a salesman can be expected from any of them.

Realizing that this education and training is most expensive and that at best it can be accomplished only over quite a period of time, the Link-Belt Company of Chicago, Indianapolis and Philadelphia, have adopted the policy of holding annual sales schools. The most recent of these schools held at the Link-Belt Indianapolis Plants, May 11th to 14th, inclusive, composed of 30 salesmen from the Company's widely located Offices, was addressed by George P. Torrence, General Manager of the Ewart and Dodge Plants; James S. Watson, Manager of the Dodge Works—"The Home of Silent Chain"—and many others, including foundry heads, shop managers and metallurgical specialists.

Not only does this type of "school" permit the salesmen to inspect the plants in which many types of malleable iron and steel chain, for elevating, conveying, and power transmission, and innumerable other kinds of malleable castings are manufactured in the Ewart Plant, and silent chain and roller chain in the Dodge Works,—but it also serves many other important functions.

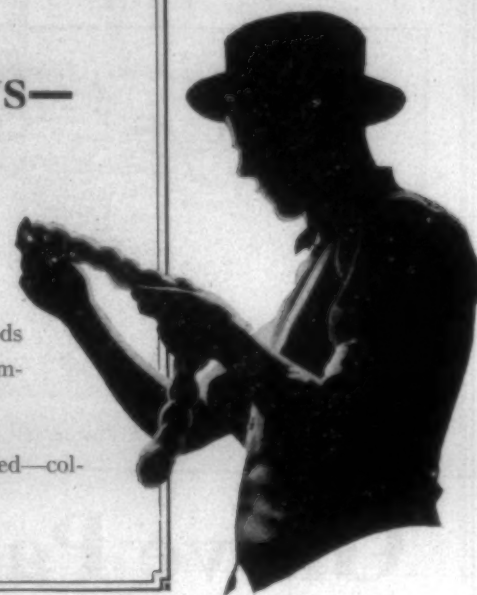
The magnitude of plant operation; the necessity for absolute accuracy in the finished product; the importance of quality material to work with; these points plus the value resultant from possessing the favor of a pleased customer will, in the long run, offset by far any savings derived thru cheaper production methods by lack of thoroughness in workmanship.

The "school" offers, in addition, an opportunity for the interchange of ideas, among the men themselves, coming as they do from such widely separated points; and makes for better feeling, real fraternity, and a dissemination of valuable sales information.

The Supt. Knows—

that when
OAKITE
is used

1. Quality of his goods is noticeably improved.
2. Trouble is avoided—colors are livelier.



ON white goods in the yarn or in the piece, a better white is obtained when OAKITE is used in wet finishing. The goods are softer, uniformly better in appearance.

One reason is because less caustic is used in the kier, and therefore the possibility of burns, stains and harshness is lessened. The goods are **cleaner** because all dirt, mineral oil, grease and wax are completely removed. And Oakite rinses freely,—there is no precipitation of insoluble soaps or waxes if water is hard.

On goods to be dyed, the material comes through so clean, dye penetration is perfect. Colors are lively and are uniformly level—free of streaks and spots.

As an assist in wet finishing, OAKITE has proven its effectiveness and genuine economy in hundreds of instances, on all kinds of goods.

There is a lot of helpful information on the use of Oakite as an assist in the wet finishing operations in the booklet "Wet Finishing Textiles." A copy will be gladly sent on request—no obligation, of course.

Oakite Service Men, cleaning specialists, are located at,

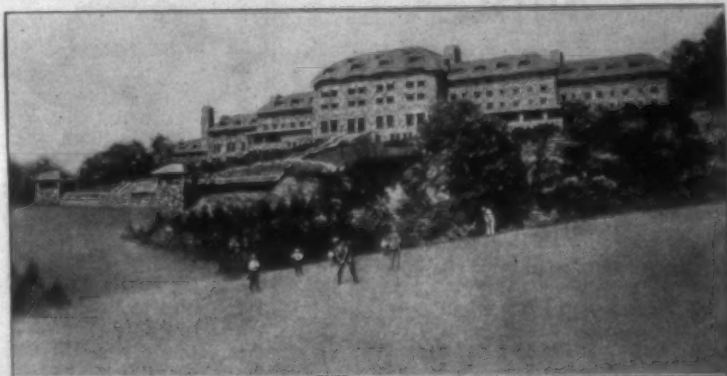
Albany, Allentown, Pa., *Atlanta, Ga., Baltimore, *Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, N. C., *Chicago, *Cincinnati, *Cleveland, *Columbus, O., *Dallas, *Davenport, *Dayton, *Denver, *Des Moines, *Detroit, Erie, Flint, Mich., *Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Kansas City, *Los Angeles, Louisville, Ky., *Milwaukee, *Minneapolis, *Montreal, Newark, New Haven, *New York, *Oakland, Calif., Peoria, Philadelphia, Pittsburg, Portland, Me., *Portland, Ore., Providence, Reading, *Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, Syracuse, *Toledo, Toronto, Utica, *Vancouver, B. C., Williamsport, Pa., Worcester.

*Stocks of Oakite materials are carried in these cities.

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Industrial Cleaning Materials and Methods
OAKITE IS MANUFACTURED BY OAKLEY CHEMICAL CO.
38 THAMES ST., NEW YORK, N.Y.

Finest Resort Hotel in the World



A Photograph of

Grove Park Inn

Sunset Mountain

Asheville, North Carolina

Absolutely Fireproof

Open All the Year

The 160-acre, 18-hole golf course is the finest in the South—it is a blue grass course.

All the water used at the Inn comes from the slopes of Mount Mitchell, the highest mountain east of the Rockies, nearly seven thousand feet altitude.

It is the cleanest, most sanitary hotel ever built. Every floor is tile. Every bedroom has mosaic tile.

The foods are the finest money can buy. The kitchen is spotless white tile to the roof and pure white mosaic tile floors.

The buildings are built of great mountain boulders—some of the walls are five feet thick—boulders weighing as much as four tons each.

We are three and a half miles from the railroad. The street cars are not allowed to come near enough to be heard. Automobiles not allowed near the building during the night. We have no smoke, no dust, no train noise.

We have pure air, common-sense, digestible food, quiet in the bedrooms at night, the finest organ in the world, and an atmosphere where refined people and busy business men with their families find great comfort and a good time.

Grove Park Inn

Asheville, N. C.

Latsch Slip Draft Spinning

ANOTHER long draft spinning system has been invented by Otto Latsch, of Oxford, Ala., and patented in the United States and foreign countries.

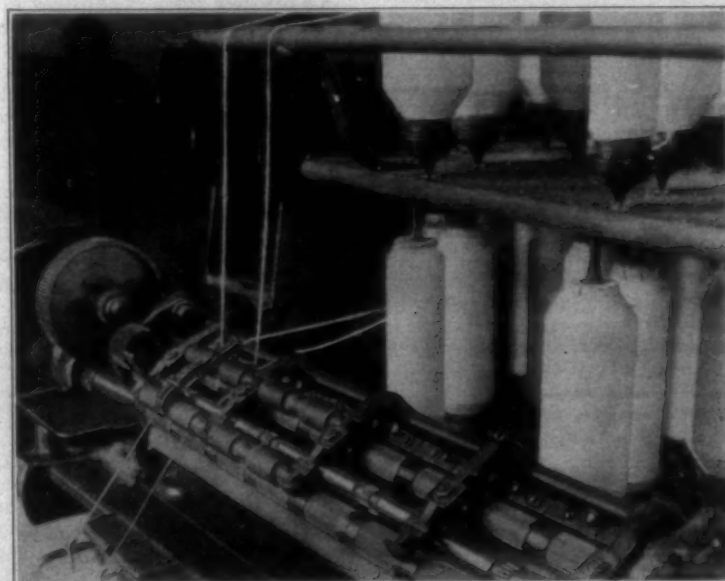
It is known as the Latsch Slip Draft Spinning Patent and is being marketed by the Economy Spinning Associates, with offices in Philadelphia, Pa., Anniston, Ala., Zurich, Switzerland, and Florence, Italy.

In a circular the selling agents have the following to say:

The basic idea of long or slip drafting, is close roller setting, shorter than the average length of the fibre to be drafted. At the same time it allows slippage of the fibre through the rollers in order not to injure or break the fibres, but allows them to be drawn through the feed rollers. Some systems employ two (2) leather aprons for each spindle. These leather aprons are driven by the rollers and guided by guide

cause the roller to speed up. These conditions would be more pronounced the higher the draft, as the higher the draft the faster the fibres are pulled through the rollers and these fast moving fibres give to the top rollers an added rotary impulse in addition to the one received by the bottom roller. This causes uneven draft and, of course, uneven yarn.

The Latsch Slip Draft System does away with the changing of rollers and roller setting for different yarn numbers or different cotton. The speed of the middle top roller is at all times the same as the speed of the bottom roller. The top roller is positively driven by gears from the bottom roller and receives a positive constant speed not any longer influenced or subjected to the fast slipping fibres and the draft is constant. A positive driven middle top roller has never before been



Latsch Slip Draft Spinning System.

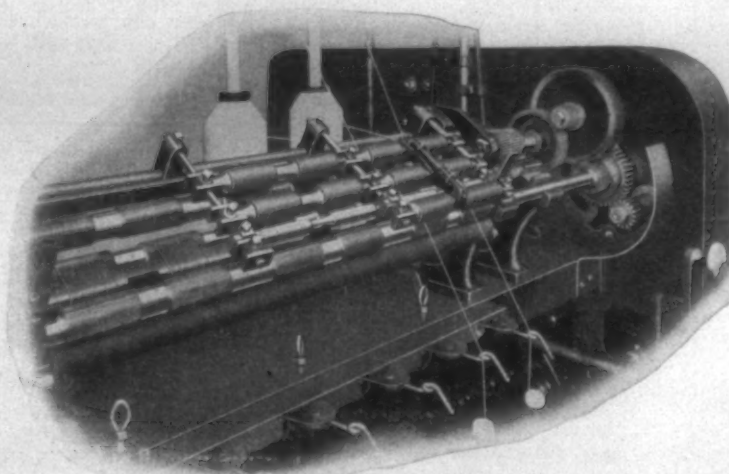
wires or other small rollers close up to the front rollers. The fibres slip through these leather aprons. Other systems have a leather apron and one (1) top roller and tightening rollers for the leather apron. With all of them certain good results can be obtained. In systems employing light weight rollers of small diameter there are some disadvantages. It is that the rotary motion of the middle top roller is supplied by the middle bottom roller through friction. The top roller rests on the bottom roller and there is no pressure. It is self-weighted. Between these two (2) rollers is the roving and fibres which are to be drafted, or in other words, pulled through by the front rollers. For certain yarn numbers and different kinds of cotton it has been found necessary to change the roller setting and also the weight of the top rollers. It was necessary to carry different weight top rollers in stock. Also small impurities in roving, as are found in low grade cotton, will affect the top roller, causing it to lift or stop and ends to break. Heavy places in the roving will

employed in drafting cotton in any process, carding or spinning. With this positive driven top roller, this system will accomplish as much as any other high drafting system on the market under the same conditions. It is absolutely free of repairs, nothing to wear out and nothing to get out of order. There are no more moving parts in the present system. It takes less power. It is easy to keep clean. The system has the advantage of the positive driven middle top roller which insures a constant, uniform draft, therefore a more uniform, smoother yarn can be spun than any other system can produce from the same roving and from the same grade of cotton. It can be installed on any machine now in operation without great expense and once installed will never call for any more care or attention than the present spinning frames. The same quality yarn can be spun for less cost or considerable better yarn for the same cost. As a testimonial they offer the following letter from the Back Creek Cotton Mills, Siluria, Ala.:

(Continued on Page 34)

SACO - LOWELL

LARGEST MANUFACTURERS OF TEXTILE MACHINERY IN AMERICA



Saco-Lowell Long Draft
Le Blan-Roth Patent

(Patented in Foreign Countries. Patent Pending in U. S.)

LONG DRAFT SPINNING

Is a sound and practical method of reducing the cost of making yarn. The Saco-Lowell equipment is particularly adapted to American practice. It is

EFFECTIVE
CLEAN
SIMPLE
ADAPTABLE

SACO-LOWELL SHOPS

NEWTON UPPER FALLS, MASSACHUSETTS

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ATLANTA, GEORGIA

FOREIGN SALES DEPARTMENT, NEWTON UPPER FALLS, MASSACHUSETTS, U. S. A.

Practical Discussions

By
Practical Men

Changing the Twist or the Draught.

Editor:

When my yarn runs, say, one number too light for any reason whatever it begins to run badly, and which is best for me to do, make the yarn one tooth heavier on the draft or put in one tooth of twist? Please have this matter answered if you can?
Texas.

Pile and Counter Pile Rolls on Nappers.

Editor:

Which rolls are counter pile and which are the pile rolls on a napper? How can this be told at a glance?

Napper.

Napper Wire Dimensions.

Editor:

Seeing your information columns give so much valuable advice, will you please advise me as to why napper clothing wire has two dimensions, and which way do these dimensions run? That is, what is meant by a napper wire numbered 30-32 and 45 degree angle?

Napper.

Replying to the question of napper wire dimension, by Napper, will be glad to explain to him the reasons for this. Napper wire is the hardest worked wire used in the manufacture of cotton. It has to be strong. A perfectly round wire would bend more easily than an oval wire. Therefore napper wire is always made with two dimensions. The thinner part of the wire is at a right angle to the angle of the wire. The larger diameter runs with the direction that the wire points. That is, number 30-32 wire indicates that the wire is number 30 standard American gauge thru the wire at right angle to the angle of the wire. The number 32 shows that the diameter of the wire is gauged to No. 32 standard American size. The 45 degree of angle shows the angle of the wire from the knee up. Napper wire has a needle point which may be tempered or hardened.

H. D.

Answer to Phil.

Editor:

In answer to Phil regarding how to figure labor turn over. As he states there are different ways of figuring this out, it depends upon what it is desired to find out in connection with this subject. If it is desired to ascertain how many new hands have replaced old hands dur-

ing a given period, that is one thing. For example, if there are 1,000 hands employed and in three months' time there are 200 hands replaced, the turn over by names or persons is 10 per cent. Another method is to take it by the hour. Say the working time is 60 hours per week. 13 weeks by 60 equals 780 hours by 1,000 hands equals 780,000 operative hours. By going over the pay roll or time sheets, it is found that 5 per cent of this time was replaced by help called in to fill in unavoidable absences—so-called. Five per cent of 780,000 equals 39,000 hours. Now we find that the 200 new operatives have averaged only 40 per cent of the full working time. This is because they have come to work at different times up to the "lost hours" of the three months period. This is equal to an average of only 80 new hands by 780 hours each and which equals only 62,400 operative hours for the new hands. Now if we deduct the unavoidable hours replaced from the new operative hours coming in, we have 62,400 minus 39,000 equals 23,400 of excess labor turn over. This amount divided by the 780,000 hours which represents the total operative hours, make an actual labor turn over of only 3 per cent net instead of 20 per cent gross as found by persons. Another way is to take it by the wages earned instead of by the hour. Still another way is to take it by the production of each group. In any event it will always be found that the labor turn over is much less per hour's work or per wage earned or per product, because the regular old hands carry the bulk of the load at all times. Now as to the cost of the labor turn over, this can only be determined by figuring up the product of each group. The waste, breakages, seconds, casualties, etc., will have to be estimated to quite an extent for the incoming new hands. Otherwise it will entail an endless amount of extra work and extra cost for the extra watchers, timers, recorders, etc., to observe what is being accomplished by the new hands.

N. E.

Answer to No. 25.

Editor:

In reply to the question asked by No. 25, beg to say that the most common cause for cotton blowing out around the screen is because the screen is not close enough on the side, giving trouble.

Other causes for this are rough screen is not set close enough on the close enough, or flats off; cylinder clothing may have wires bent near selvage, causing an outward current of air.

A Grinder.

Causes of Bad Spinning

A series of articles contributed to a Prize Contest on this Subject

Ninety-seven men contributed articles to this contest for the best practical article on "Causes of Bad Spinning," and many of the contestants are men who are rated as among the best spinners in the South.

Seven judges have been selected and each of them will at the close of the contest name the article that they think best and also second best.

A vote for first place will count one vote, while a vote for second place will count one-half vote. The total of the votes and one-half votes will decide the winner, and it is going to be a great honor to win in a contest of this kind.

When the contest is over, the articles will be printed in book form and the book will contain the best information ever compiled on spinning.

If, as the articles appear, you note any statements with which you do not agree we would be pleased to have you send us a statement, to be published, either under your own or an assumed name.

Number Ten

Among the causes of bad running spinning I wish to give the following:

First.

I find one cause of bad running work caused by the tips of roller bars being worn which allows the rolls to spread too wide apart.

Second.

Another cause is when the oiling is not properly done. If the spindles run dry they are inclined to wobble and cause bad running work. Again some oilers use too much oil and get it all over the rolls. My method is not to send the oilers out, or to change oilers unless it is absolutely necessary. No two oilers tie bands alike.

Third.

I find a lot of men who like hard twist roving. I find hard twist roving sometimes runs through the rolls whole, tearing down three or four ends. I find soft twist roving, with just enough twist in it to keep from breaking back, a lot better.

Fourth.

When I first went to work as second hand, I thought the man who kept all his frames running was the man on the job. I worked second for ten years, under what I thought good overseers, as they are still on the job, some of them as superintendents. All I could hear was "can't you stretch out and let the other man have about 40 sides today?", which I would do and then have the ends down all day, and this is the trouble in a lot of mills today with bad running work. When I became overseer, I changed all 12 side spinners to 10 sides, and all 10 side spinners to 8. The spinners said you are cutting our wages, and I said, no I am not. When you are running 12 sides you are working too hard and have to stay out one or two days a week, and now you run 10 and work six days per week.

I have been on the job about six years and have never seen my work torn up, and I figure this way, we stay ahead of the job, and if we have a bad windy day we can keep our ends up just the same.

D. C.

Number Eleven

We know that every time a thread breaks while it is being spun, there is a cause for it. When we have poor weaving there are defects in the yarn. Therefore poor yarns make or cause defective cloth.

Let us look back to the time when the best spinners ran four to six sides and the best weavers ran four looms and compare their work with the modern machinery and skilled labor of today. Then we can better see the causes of bad spinning and the remedies.

Cotton is the foundation. You should grade it carefully and class it to suit the numbers being spun. Pull a good sample from each side of the bale. Get the length. If it does not suit your numbers, set it aside and do not use it under any circumstance. It would help the cause of good spinning if every carder and spinner in the country thoroughly understood classing the cotton to suit the numbers they are making. Where the cotton is looked after closely with the other things we shall mention, the mills would never have a day's bad spinning.

The beaters in the picker room should have a speed of between 1,000 and 1,200 r. p. m. If they are run above or below the above speeds, it shows up in the spinning carding. Beaters should be set 1-16 of an inch to feed rolls for cotton up to 1 1/4 inches. Grid bars should be set close to beater at front, about 1/4 inch, and 1/4 at the bottom. Laps should not be allowed to vary more than one-half pound.

Dull and badly ground card clothing, doffers set too far from cylinder, breast plates set too far from cylinders keep the card from taking out enough short cotton in the strip. These things cause bad spinning when they are not looked after. When there is not enough twist in slubber, intermediate and fly frame roving, we will find some of the causes here. The twist in the roving at each process holds the fibres together as it is being drawn to the "bite" of the rolls and if there is not sufficient twist,

we have had running spinning and what is known as hairy yarn. In fact, nothing will make spinning run worse than soft twisted roving.

Another cause of bad spinning is not having top and bottom rolls set to suit the staple. Sometimes we find the back and front rolls set with the same distance between them. The back roll should be set not less than $1\frac{1}{2}$ inches from the middle roll and farther for long staple cotton. Again, the roll covers are often neglected until they become smaller in the center than at the ends, which is caused by roving guides not traversing the proper distance on the roll. Worn cots are often found on any and all machines from slubbers up to and including spinning frames.

At the spinning frames, we find many causes of bad spinning. If the spinning rolls are not set to suit the length of staple, we will have bad spinning. If cleaning and oiling is not properly done, bad spinning will result. Coarse work and short staple cotton require more work and more cleaning than fine yarn and longer staple. To make a good smooth yarn it is absolutely necessary to keep the machines as clean as possible. Lint with gather on the steel rolls and should be cleaned off regularly, about three times each week.

Cleaning top rolls and oiling them at regular intervals is part of the system to prevent bad spinning. Where bands are used, they should be uniform in size. Guides and roving must be kept perfectly clean as a part of the regular routine.

Spindles must be kept plumb and set to the center of the ring, top and bottom.

Travelers too light or too heavy for the yarn often cause poor spinning. Guides should be inspected and kept set with the side nearest the frame exactly over the center of the spindle.

With filling wind on warp, we get better production and the spooler can run with increased speed without straining the yarn.

Fine yarns are not easily spun without sufficient humidity. Humidity must be regulated according to the numbers and the local conditions. We always find the little things giving trouble. They must be looked after as they confront the spinner.

Draft is a matter of opinion among different spinners and we often find mills using excessive draft on some of the machines, especially fly frames and spinning frames. Long drafts cause the work to be uneven and bad spinning often results from this cause. The longer staples can be drawn more than the shorter staples, but there is a limit when quality and quantity are desired.

Again, the doubling plays an important part in making the yarn even and preventing bad running spinning. The following shows the doublings as they have been increased from coarse to fine yarns since 1887:

Spinning (Single Roving)

Finisher 4 doubling
1st Drawing $3 \times 4 = 12$ doubling
2nd Drawing $3 \times 12 = 36$ doubling.
Fly frame $2 \times 72 = 144$ doubling.
Intermediates 4 doubling.
Finisher $4 \times 4 = 16$ doubling.
1st Drawing $6 \times 16 = 96$ doubling.
2nd Drawing $6 \times 96 = 576$ drawing.
Intermediates $2 \times 576 = 1151$ doubling.
Fly frames $2 \times 1152 = 2304$ doubling.
Spinning $2 \times 2304 = 4604$ doubling.

Spinning (Double Roving)

With double roving in spinning, medium numbers, doublings are as follows:

Intermediates 4 doubling.
Finisher $4 \times 4 = 16$ doubling.
Doubling machine $16 \times 16 = 256$ doubling.
Ribbon lap machine $256 \times 40 = 1024$ doubling.
1st Drawing $6 \times 1024 = 6144$ doubling.
2nd Drawing $6 \times 6144 = 36866$ doubling.
1st Intermediate $2 \times 36864 = 73728$ doubling.
2nd Intermediate $2 \times 73728 = 147456$ doubling.
Jacks $2 \times 147456 = 294912$ doubling.
Spinning $2 \times 294912 = 589824$ doubling.

H. W. P.

Number Twelve

If I were given charge of a room and the spinning was running bad, the following is what I would do:

First: I would look after the humidity, I would try and get the humidity around sixty-five to seventy-five degrees, and if it could be kept there I would see that it was done. There are many spinning departments that run bad at times and I have found that it was caused by not watching the humidity as it should be.

Second: I would size up all numbers and check over my drafts and draft gears and twist and twist gears and if they were not correct would correct them at once.

(Continued on Page 20)

RAYON REEDS

On account of the ever-increasing use of Rayon (artificial silk) by Southern cotton mills, we are making a reed particularly adapted to the Rayon yarns.

Special attention is necessary to the finish on the wire used in these reeds, which finish requires approximately three times the length of time usually given to regular reed wire.

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Plan to Form Textile Institute

Greenville, S. C. — The steering committee appointed at the recent meeting of the American Cotton Manufacturers Association to consider plans for bringing about more stable conditions in the textile industry, held its initial meeting here on Monday. The formation of the proposed Textile Institute in order to give manufacturers reliable information concerning production and marketing of goods was discussed at length at the meeting. After working out a tangible working plan for the Institute, the committee decided to secure an appointment with Secretary of Commerce Hoover in Washington at an early date and discuss with him the plans for the Institute. The meeting with Mr. Hoover will be the next session that the committee holds.

The committee appointed to meet here consisted of the following: J. P. Gossett, of Williamston; B. E. Geer, of Greenville; J. M. Gamewell, of North Carolina; John A. Law, of South Carolina; J. E. Evins, of South Carolina; T. M. Marchant, of Greenville; Cason J. Callaway, of Georgia; B. B. Gossett, of North Carolina; H. C. Fitzgerald, of Virginia; A. M. Dixon, of North Carolina; George S. Harris, of Georgia; Ellison A. Smythe, of North Carolina; Stuart W. Cramer, of North Carolina; George E. Spofford, of South Carolina, and by invitation, W. D. Adams, of North Carolina; W. M. McLaurin, of Georgia and Hunter Marshall of North Carolina.

To this list, 12 additional manufacturers from the South and East were appointed at the session here, these being: James Amory and Edwin F. Green, of Boston; V. M. Montgomery, Alex Long, James C. Self, of South Carolina; Allen F. Johnson, of Virginia; J. A. Woodside, of New York; W. A. Erwin and B. M. Cone, of North Carolina; Howard Baltizer, of Maryland; George H. Lanier, of Georgia; Donald Comer, of Alabama. Names of other members to be added to the committee will be announced later, it was stated. These men, representing various textile industries, will probably go with the steering committee when it meets with Secretary Hoover.

As discussed in detail here, the proposed institute, which will be an organization serving members of the manufacturers' association, will be so drawn up and operated as to check between supply and demand of textile products; prevent overproduction of some types and insufficient production of other types of textile materials; develop new uses for cotton fabrics; to enlarge the foreign outlet and to conduct a sound campaign of publicity for the textile industry.

The institute will, if brought into actual existence effectually carry out the purposes for which it is established by constantly keeping in touch with textile conditions, anticipating needs and regulating production. In effect, the institute will be a board of governors, or direc-

tors for the textile industry, it was explained by those attending the gathering Monday.

W. J. Vereen, of Moultrie, Ga., chairman of the steering committee, stated that while progress toward stabilizing the textile industry will, because of the magnitude of the task, require time, he was extremely well pleased with progress made at the meeting. He declared that the tack cut out for the steering committee is much like building a house, and that he considered work done here as the foundation. If the institute is actually formed when the committee confers with Secretary Hoover, and goes into operation as planned, the long step toward maintaining a stable industry will be taken.

Weavers Meet June 18th

Plans for the coming meeting of the Weavers Division of the Southern Textile Association are outlined in the following statement from F. Gordon Cobb, secretary of the Association:

"The Weavers' Division of the Southern Textile Association which meets at Anderson, S. C., Friday June 18th, will without doubt be the most important meeting for mill superintendents, weaving and cloth room overseers that has ever been held.

"The meeting will be entirely different from former meetings inasmuch as we have actual samples of cloth taken from twenty representative mills; and we expect the members who attend this meeting to grade this cloth as to imperfection. In other words, if a majority of the members can agree on the grading of these samples, the Southern Textile Association will buy these pieces of cloth.

"These samples will be shown at our semi-annual meeting which will be held at Tybee Beach. Then if the Southern Textile Association confirms the judgment of the sectional meeting, these pieces of cloth will be set up as standards.

"The above illustration will be carried through with seconds and other grades of cloth. We propose to start with a range of print cloths as follows: 80x80 4-yard goods, 72 x 76 4 1/4-yard goods, 68 x 72 4.75-yard goods and 64 x 60 5.35-yard goods.

"This meeting will be conducted by L. L. Brown, general Superintendent, Clifton Manufacturing Company, who is Chairman of the Weavers' Sectional Division. Mr. Brown has done a vast amount of work in preparation for this meeting, and I am giving you my personal assurance that you will not regret the time spent in attending.

"You remember the announcement we sent out about the Carders' Sectional Meeting held in Spartanburg, and all those who attended agreed that we presented the greatest volume of practical experience that we have ever had; and this notice is to let you know that we have just as much in store for you at this Weavers' Sectional Meeting.

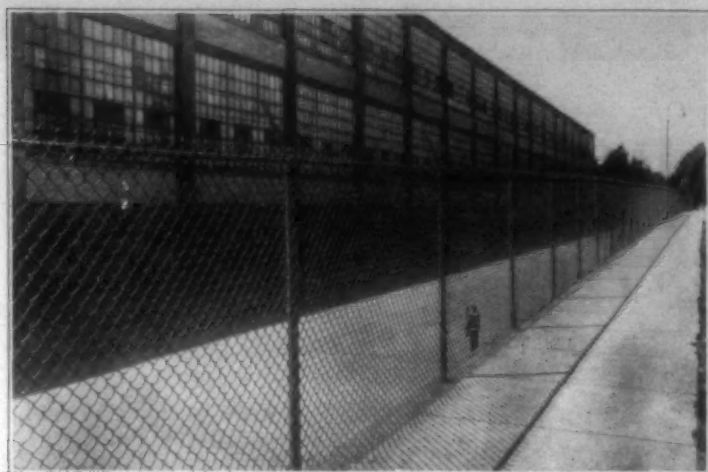
"Carders and Spinners are of course welcome at this meeting."

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This demonstration frame is equipped for running both carded and combed yarns, and by communicating with Mr. C. W. McSwain, 39 South Church Street, Charlotte, N. C., we will be glad to spin yarns from roving furnished by any mill interested.

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CAUSES OF BAD SPINNING

(Continued from Page 17)

Third: Travelers are very important and play a large part in good spinning. There is no set rule that will apply on the weight of travelers. The overseer should watch the travelers himself and run the traveler that is best suited for his work. This is something that should not be left entirely with second hands and section men, but all should watch the results from different styles and weight travelers and be governed by same.

Fourth: Cleaning and oiling is often neglected. I will not attempt to give any rule for this, but will say that we all know the cleaner we keep a machine, and properly oiled the better it will run.

Fifth: Banding is another thing that is not looked after as it should be. The bands should run around ninety to one hundred to the pound and should be put on by a responsible hand and the bander should go over one frame per day and cut off all loose bands and replace them with new ones.

Sixth: Doffing and end-piecing should be looked after more closely than it is by most overseers. The doffers should be trained to doff good ends and should be required to put up all ends after doffing a machine. The end piecer should be taught socket end piecing which is to thread the traveler and raise the bottom up and put the thread under the bobbin breaking off the loose end of the thread. By piecing up this way there will not be any loose ends and kinks on the bobbin where the ends are pieced up, causing the ends on each side to come down as will be the case where the thread is put around the bobbin and pieced up.

Seventh: Roving, the card room can be running good and yet the spinning room getting bad roving, such as hard ends, stretching roving, gouts and doublings and singlings as well as uneven roving. If a spinner is on his job he will know just what he is getting from the card room and the spinner should not let a carder get by with the above work. And if he goes after the carder in the right way they should be able to correct the above without any trouble or hard feelings. All overseers should work together and for the interest of each job and the company they are employed by.

Eighth: Rolls and rolls settings, I will not give any rules for setting rolls as the setting of rolls depends on what staple cotton we have to spin from. Will say that the bite of roll should be set just a fraction farther apart than the length of the staple cotton we are using. The section man and spinners should be taught to watch the rolls and put them in correctly. The spinner should not be allowed to put in new rolls. This should be done by the section man, and every roll should be put in correctly and oiled and the section man should go over one frame per day and replace all bad rolls in front and work the best old rolls out of front to middle and back.

Ninth: Overhauling should be thoroughly done every twelve to eighteen months depending on the age and condition and care of the frames. This should be done by good, experienced spindle plumber. Frames should be level crosswise and lengthwise and spindles plumbed at top and bottom. Steel rolls should be laid out of stand and cleaned and scrubbed. Weight levers should be set about one inch above creel board and the section man required to keep them set that way at all times. The overseer should examine the overhaulers work and see for himself that it were done right.

Tenth: A great deal of our bad running work is caused by carelessness and the overseer is responsible for the carelessness by not taking the lead himself but leaving it entirely with the second hand and section man. It takes co-operation between the foreman and help to have good running work. In other words and overseer should spend the most of his time around the machines he has charge of and teach his help that he is there to show them anything they want to know about the work and how to take advantage of the work. It is much easier to run a job, that is right up to the minute than one that is five to ten minutes behind. I have learned that an overseer can get more and better work from his help by being kind and firm and strict with business and always treating the help as he would like to be treated. We are all humans and all should be working for the same cause and a set of help and a job is what you make it. Learner.

Number Thirteen

I am giving you below some of the things that I have found that will cause bad running spinning.

First—I will say I have had ten years' experience as overseer spinning, but part of this time I was overseer carding and spinning. I will give you some of my experiences on things that will make the spinning run bad.

Second—I will say that uneven roll setting will make the work run bad in spinning.

Third—Neglecting to pick your leather rolls as often as you ought to will cause little wads of cotton to accumulate under the roller at the end. This will lift up the roller and will prevent the right draft; this will make bad running spinning.

Fourth—Neglecting to give your leather rolls the proper amount of oil at the proper time. I have found this one of the most important things in good running spinning. You should get a good lubricating oil for your rolls and stands and apply systematically.

Fifth—If band drive, you will find uneven bands will make bad running work. In some spinning rooms I know of the people who do not know or take any notice of what their bands are weighing, or what size they are. We should first select the size band we want and have them all made the same size. This is to give the spindles all the same speed, as we all know

if we have our spindles all the same revolutions per minute we then can select the right traveler for same.

Sixth—Some time we take a new job and will find the work is running bad, and we have to dig very deep to find the trouble. We may begin to look around and maybe the section man has turned over a few rings and has forgotten about it and has the same travelers on these as he has the other frames in the room. This is one thing we should regard very closely, as this will make poor running spinning.

Seventh—To look after our roving traverse and see that each one is making the right stroke on each frame and see that the roving trumpets are kept in good condition and well cleaned.

Eighth—See that you have the right humidity in the room, as this is very easy to forget, as sometimes, especially in March, the winds can dry the room in just a short while.

Ninth—The spindles and rings should be properly set at least once a year, especially where you are running double shift. When we go to set the spindles we should see that the frames are in perfect line and should level them if they require leveling. Sometimes we find a few frames in our room that do not need leveling, but I find this pays you when you set your spindles and rings to go over and see that your frames are all level, as this helps to keep the work from running bad.

Tenth—The spindles and bolsters should be kept oiled systematically. My experience has been in oiling spindles for best results, about every twenty-eight days, that is if on single shift, but of course if you are running day and night I would say every fourteen days, when spindle speed is from 8,000 to 9,000 R. P. M.

Eleventh—We should go over our gears at least once a month and see that we have no gears on our frames that has broken teeth in them, as a broken tooth in any gear will have a tendency to make the work run bad. We then should see that our gears are set as they should be. Sometimes we can set our gears too deep and this will make the ends run bad on your spinning.

Twelfth—Another thing is to be sure and buy bobbins and quills to fit the spindles. I have seen bad running spinning because the bobbin did not fit the spindles as they ought. Some of the bobbins were too large inside and would make soft yarn. The bobbin should hug the spindle tight enough to get the proper turns per inch. This applies especially to warp yarn.

Thirteenth—We should time our front roller on each frame at least once a week, as we often find trouble in so doing. This will see if you are getting the proper speed. It will also give you some idea whether your stands and rollers have been oiled or not. I have before now been timing the front roll in hot weather and found them quivering. This means in some respects that the oiler is neglecting a part of his duty.

Fourteenth—I would say that this is spinning $\frac{3}{8}$ to 1-inch cotton which will apply to most any cotton around this length.

Fifteenth—We ought to have our clear boards picked clean two or three times every day and go over about every month and see that the flannel is well kept on them, also our scavenger rolls. Keep them well covered, and cleaned after every doff. Keep tops clean and also floor and have the doffers to clean up the frames daily.

Joe.

Number Fourteen

Bad roving plays a great part in bad spinning but I believe we are to deal with perfect roving. Things I would do and things I have done in bad running spinning rooms are as follows: First, I would want good help; second, cleanliness, for I have found cleanliness plays a major part in good spinning. Each spinner should know to run out her front sides every thirty minutes and wipe out her back sides every two hours. Also brush her spindle whirles every two hours, wipe her roving sticks at least twice a day.

It is the duty of the overseer to see that each spinner has no more sides than she can keep clean. The top leather rollers should be cleaned or picked every day. Steel rollers should be cleaned by the spinner once a week. Top clearer boards should be cleaned every two hours and all loose lint should be wiped off the top of the creel.

Third—I have found the lack of oil to be one of the causes of bad spinning. The man that does the oiling should be honest and trustworthy in every respect. Back leather rollers should be oiled at least once a week, front leather rollers should be oiled twice a week where you are running 55 hours per week.

Steel roller stands should be oiled every day. All gear head bearings should be oiled every day, loose pulleys should be oiled twice a day, cylinder bearings should be oiled every day, spindles should be oiled every two weeks with a good grade of oil.

A good grade of band twine and proper size to suit whirl of spindle should be used, for I have found slack bands to be the cause of bad running spinning. A good humidity system is the prime factor in good running spinning.

Frames should be overhauled once every year. In overhauling, frames should be lined and leveled, steel rollers scrubbed with a stiff bristled brush or hard waste. I have found in cleaning steel rollers card clothing should not be used, for it scratches the rollers and causes the ends to lap. Although the scratch may not be seen, being so fine, down in the flute it will pick up fine fiber and cause the ends to lap. The roving traverse should be made to run the proper distance on the roller and not too close

(Continued on Page 28)

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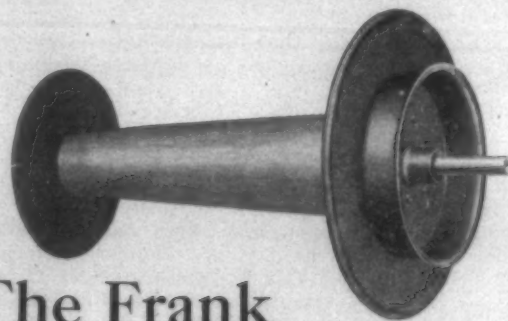
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The Greenville Conference

REPORTS from the conference held at Greenville, S. C., on Tuesday indicate that those present were seriously and earnestly interested in the problem of working out some plan of stabilization.

In order to know how far they can go, it was decided to ask for a conference with Secretary of Commerce Herbert Hoover, which was readily granted, and it will be held at Washington, D. C., next Tuesday.

The original members of the committee were Samuel F. Patterson, Roanoke Rapids, N. C.; W. J. Vereen, Moultrie, Ga.; J. C. Evins, Clifton, S. C.; J. M. Gamewell, Lexington, N. C.; Geo. S. Harris, Atlanta, Ga.; Scott Roberts, Anniston, Ala.; J. P. Gossett, Williamston, S. C.; H. R. Fitzgerald, Danville, Va.; Jno. A. Law, Spartanburg, S. C.; B. B. Gossett, Charlotte, N. C.; Arthur Dixon, Gastonia, N. C.; Geo. E. Spofford, Langley, S. C.; Charles A. Cannon, Kannapolis, N. C.; T. M. Marchant, Greenville, S. C., and Cason J. Calaway, LaGrange, Ga.

Scott Roberts and Chas. A. Cannon were prevented, by other engagements, from being present, but all the others were present.

It was decided to add to the committee the following: Capt. Ellison A. Smyth, Balfour, N. C.; B. E. Geer, Greenville, S. C.; Stuart W. Cramer, Cramerton, N. C.; Victor M. Montgomery, Spartanburg, S. C.; A. F. Johnson, Lynchburg, Va.; W. A. Erwin, West Durham, N. C.; Geo. H. Lanier, West Point, Ga.; Donald Comer, Birmingham, Ala.; Howard Baetger, Baltimore, Md.; J. D. Woodside, New York; Bernard M. Cone, Greensboro, N. C.; J. C. Self, Greenwood, N. C.; Alex Long, Rock

Hill, S. C.; Robt. Amory, Boston, Mass., and Edwin Farnum Greene, Boston, Mass.

This is an excellent and representative list of mill men, but we wonder if it is not a mistake to fail to include the managers of some of the small mills.

There are more small mills than large ones and without the co-operation of the small mills no stabilization plan can be a success. Furthermore, it can be truthfully said that many of the managers of small mills are of equal ability with those named above and that they have an equal interest in stabilization.

The conference with Secretary of Commerce Herbert Hoover at Washington, D. C., will be watched with much interest.

Too Much Pessimism

WHILE curtailment is advisable and will eventually help the market, it is a fact that reports of curtailment always have an adverse effect upon the buying of cotton goods.

It appears to us that there are too many loud wails and too many pessimistic reports being sent out by mill men.

Why not try to see a few of the bright spots?

Consumption of cotton goods during the past twelve months has been greatly in excess of production, for how else could the large stocks of goods held last year have been absorbed?

The weekly report of Marshall Field & Co. says:

"Current wholesale distribution of dry goods showed a good increase over last week's volume and exceeded that of the same week a year ago by a considerable

margin. Greater retail activity in many sections was reflected in road sales figures, which were greatly in excess of last week's total and ahead of the corresponding period last year."

The weekly report of Rice-Stix Company says:

"Demand for summer goods is increasing and various revisions in prices have attracted a very much larger amount of business. Orders for fall delivery are being placed with confidence and on a more liberal scale than at any period up to this time, and further evidence of the interest of merchants in merchandise is shown by the great number who have indicated their intention of visiting St. Louis during the coming week to attend our midsummer clearing sale. It is expected that a larger number of merchants will be in attendance than on any previous similar occasion."

The mail order houses and chain stores have given out some very favorable figures on their April sales. Sears, Roebuck & Co. show a gain of 5.8 per cent as compared with last year; Montgomery, Ward & Co. a gain of 9 per cent, and F. W. Woolworth, 0.4 per cent. For the first four months this represents a gain of 5 per cent for Sears, of 15 per cent for Ward, and of 4.7 per cent for Woolworth.

A report from the Philadelphia yarn market says:

"Sellers report that there is more or less general agreement among their customers with the sellers' view that yarns are cheap. It is explained that in most instances where yarn consumers receive new orders for goods they are covering with yarns fully, instead of buying for only a part of their known requirements, as they have very frequently done in the past."

London recently cabled Dow, Jones & Co.:

"Tattersall says normal conditions are gradually being established. The general demand for yarns and cloths is broadening. Big cloth inquiry is noted from India, with some encouraging sales. There are better advices from China, with more orders placed for standard makes including fancies. Reports are poor from Egypt, but there is more activity in specialties from the Continent."

If this curtailment continues and the mills refuse to accumulate goods we are liable to wake up some morning and find a demand for goods in excess of the ability of mills to deliver and a period of prosperity will result.

Stocks of cotton goods are below normal in the hands of the mills, in the hands of the jobbers and in the hands of retailers.

The situation is not nearly as bad as is generally supposed and recovery might come unexpectedly if mill men would quit making pessimistic statements.

Did anyone ever know a pessimistic statement to assist in reviving business?

Demonstration of Casablancas Spinning

THERE is much interest throughout the industry in the several forms of long draft spinning and the demonstration of the Casablancas system in Charlotte from May 27th to June 2nd, inclusive, will no doubt draw a large attendance.

The spinning frame which was used to demonstrate the Casablancas Long Draft Spinning at the recent Textile Exposition at Boston, Mass., is being shipped to Greenville, S. C., but is to be stopped at Charlotte for a week in order that the mill men in this section may see its operation and everybody from section hand to president is invited.

It has been placed at 39 South Church street, which is next door to the Charlotte Observer, and the demonstration will be in charge of C. W. McSwain, of Greenville, S. C.

Style Only

A SHOE dealer in a small city had on his hands 450 pairs of high shoes, of good quality and appearance, but no longer of the prevailing style, so one morning he put them on a counter outside his shop with a sign which read: "\$1 per pair."

Ten o'clock came with no purchasers, and the merchant changed the sign to "Two pair for \$1."

At twelve o'clock he changed the sign again to "Three pair for \$1." At four o'clock, after not a single purchaser for high shoes had appeared, he changed the sign once more to read, "Help yourself."

Many persons stopped at the counter during the remainder of the afternoon, but at six o'clock not one pair of shoes had been carried away. The persons who stopped had merely removed the laces.

If the cotton manufacturer or any other manufacturer expects to succeed in business he must make what the people want. If an article is not in style it has little selling value. The styles and the public whims must be studied as never before.

Judge Gary Optimistic

JUDGE GARY, head of the United States Steel Corporation, biggest industrial enterprise on earth, told other steel men last week that "business is sound and growing, and prosperity is perhaps greater than ever."

Judge Gary is in a position where it is his business to know whether or not prosperity is ahead.

The steel industry which he dominates never operates 100 per cent capacity. They regulate production to consumption and they make it their business to know what consumption can be depended upon.

In the cotton manufacturing industry, there are many little men who want to go home and tell their wives and their neighbors that they are so much better manufacturers and better merchants than the other mill men that they do not have to curtail. They want to see an article in their local paper praising them for being able to run while other mills curtail.

The egotism of little men and their desire to appear better than the others, does much to prevent curtailment.

Personal News

C. O. Richardson, of Boston, Mass., is now president of the Samoset Mills, Talladega, Ala.

Z. W. Wheland has become treasurer of the Yates Bleachery Company, Flintstone, Ga.

J. T. Copeland has resigned as superintendent of the Demopolis Cotton Mills, Demopolis, Ala.

T. G. Bailey has succeeded O. Thompson as secretary of the Demopolis Cotton Mills, Demopolis, Ala.

G. F. Nettles, Jr., has been elected secretary of the Swift Spinning Mills, Columbus, Ga.

S. J. Hunter has succeeded T. H. Reeves as superintendent of the Red River Cotton Mills, Carhartt, S. C.

R. S. Thompson has been appointed secretary of the Kenneth Cotton Mills, Walhalla, S. C.

E. L. Young has become superintendent of the Magnet Knitting Mills No. 2, Coal Creek, Tenn.

R. S. Maness, of Whitmire, S. C., has become overseer of weaving at the Henrietta Mills, Caroleen, N. C.

A. T. Wilde has been appointed agent of the Acworth Mills, Acworth, Ga.

W. H. Merriman will be manager of the Sauquoit Spinning Company at Gadsden, Ala.

J. M. Kelly has accepted the position of superintendent of the Houston Yarn Mills, Madrid, Ala.

W. C. Jackson has succeeded Wm. Atkinson as superintendent of the Lowell Bleachery South, Griffin, Ga.

W. F. Hedges has succeeded C. M. Gibson as treasurer and general manager of the Kingsport Hosiery Mills, Kingsport, Tenn.

R. F. Mellin, Jr., has been appointed secretary and assistant treasurer of the Shelbyville Mills, Shelbyville, Tenn.

J. M. Hale has become superintendent of the Tellico Cotton Mills Company, Tellico Plains, Tenn.

H. O. Thomas has resigned as superintendent of the Tellico Plains Cotton Mills Company, Tellico Plains, Tenn.

C. F. Turner has succeeded J. P. Williams as superintendent of the Georgia Manufacturing Company Whitehall, Ga.

R. M. Boyd has succeeded H. B. Clement as treasurer of the Southern Mills Corporation, Oxford, Ala.

W. P. Robinson is now superintendent of the yarn mill of the Perkins Hosiery Mill, Columbus, Ga.

R. S. Maness, of Whitmire, S. C., has accepted the position as overseer of weaving at the Henrietta Mills, Caroleen, N. C.

Manley Williamson, of Burlington, N. C., has accepted a position in the office of the Williamson Cotton Mill, Charleston, S. C.

J. S. Baird has been appointed secretary and treasurer of the Mitchell Hosiery Mills, Columbus, Ga.

L. W. Webster, of High Shoals, N. C., has accepted the position as overseer of spinning, spooling, warping and twisting at Savona Mill, Charlotte, N. C.

R. A. Whalley has resigned as superintendent of the Bremen Looms, Inc., Bremen, Ga., and accepted a similar position with Carl Stohn, Inc., Charlotte, N. C.

Fred Beadle has resigned his office position with the Savona Manufacturing Company, Charlotte, N. C., to become agent of the Excell Manufacturing Company at Lincoln, N. C.

G. D. Cobb, who for the past ten years has been overseer of carding at Bemis Bros. Bag Company, Bemis, Tenn., has been promoted to night superintendent.

George F. Payne, a well-known cotton manufacturer in New England, formerly connected in a technical capacity with Queen City Cotton Mills, Burlington, Vt., Harmony Mills, Cohoes, N. Y., Mt. Vernon-Woodberry Mills, Baltimore, Md., and Dominion Textile Company, Montreal, Canada, is special technical representative for Borne, Scrymser Company, covering in particular the application of the "Breton Mineral" Process (oil spraying on cotton).

J. L. Ferguson.

J. L. Ferguson, general manager and also secretary-treasurer of the Eureka Cotton Mills, died at his home in Englewood, Tenn., Friday night. He had been in failing health for two years following a stroke of paralysis.

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Amalie SULPHO-TEXTOL OIL

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Being *acid proof* and *lime proof*, it resists *extremely hard water*, acids (also inorganic) and high temperature dye liquors. It will not separate out of solution and form *insoluble scums* in the dye kettle.

Glauber's salts, added to the dye bath, even in large amounts, will not "break the oil." This is extremely important in certain processes of dyeing.

Two added features of AMALIE SULPHO TEXTOL OIL are its *freedom* from stickiness and its *dependability* to leave *no objectionable odors* on the goods due to rancidity. These are common complaints with the usual sulphonated castor oils, turkey red oils, etc.

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MILL NEWS ITEMS OF INTEREST

Carrollton, Ga.—The Carroll Mills are remodeling their building which they recently bought.

Bassett, Va.—Bassett Knitting Mill, Incorporated, capital \$50,000, incorporated; R. L. Stone, F. R. Hundley.

Bremen, Ga.—It is reported that T. E. Swilling, of 35 N. Forsyth St., Atlanta, will establish a tire fabric plant near this place.

Lanett, Ala.—The Lanett Bleachery and Dye Works have let contract to Batson Cook and Company, West Point, Ga., for the construction of a building to be used for the cloth waterproof process. J. E. Sirrine and Company, Greenville, are the engineers.

Itasca, Tex.—The Itasca Cotton Manufacturing Company is building an extension to its plant.

Corpus Christi, Texas—S. Maston Nixon, president, Blacklanders, Inc., reported interested in \$300,000 cotton mill.

Gadsden, Ala.—The Sauquoit Spinning Company, of Alabama has awarded the structural steel contract for its local mill to the Carolina Steel and Iron Company of Greensboro, N. C.

Pelzer, S. C.—The New England Southern Mills No. 4 are adding new opening equipment, making improvements in their humidifier system and putting a new roof on the mill building.

Eastman, Ga.—It is reported that the Eastman Cotton Mills will double the capacity of their plant by the installation of 10,000 additional spindles.

Water Valley, Miss.—The Yocona Mills announce that they will not rebuild their mill which was destroyed by fire on April 27th.

Greenville, S. C.—The Mill Manufacturing Company are making considerable improvements. They are building a new opening room and putting in new opening machinery.

York, S. C.—Hawthorne and Hampshire mills of Clover, employing eight hundred workers with a weekly payroll of about \$8,000, have given notice of curtailment to four and one-half days a week.

Monticello Ark.—Monticello Cotton Mills Company, Louis R. Myers, Secretary reported let contract to E. C. Royce, Citizens Bank Bldg., for addition to duck manufacturing plant; Lockwood, Greene & Company, Engineers., 1 Pershing Square, New York and Healey Building, Atlanta, Ga.

Mount Airy, N. C.—James H. Crossingham, of Germantown, Pa., is considering locating an underwear mill here.

Burlington, N. C.—Flint Hosiery Company, Burlington, has been incorporated to manufacture and sell all kinds of knit goods, authorized capital \$50,000, subscribed \$14,000 by D. B. May, Arthur G. Thompson, R. A. Coble, and L. C. Christman, all of Burlington.

LaGrange, Ga.—The Hillside Cotton Mills have let contract to the Daniel Lumber Company for an addition to their mill and for improvements to present building. J. E. Sirrine and Company, Greenville, are the engineers.

LaGrange, Ga.—The Unity Spinning Mills have let contract to LaGrange Lumber and Supply Company, for the erection of the building for their new 10,000 spindle waste plant. J. E. Sirrine and Com-

pany, Greenville, are the engineers. **Shreveport, La.**—The Chamber of Commerce is corresponding with a New England Mill Company relative to locating a textile plant here.

Spartanburg, S. C.—Contract has been let for a \$350,000 steam plant to be erected at Lockhart, 25 miles east of Spartanburg, to Gallivan Contracting Company of Greenville, S. C. The erection of the plant will enable the mills in the section around Lockhart and Chester to run on full time during the summer months when the water is low.

Lanett, Ala.—The contract for the construction of a waterproofing building for the Lanett Dye and Bleaching company, has been let to the Batson, Cook Lumber Company of West Point, Ga. Work on the new structure will begin at once and will be rushed to completion. Announcement of the letting of the contract was made from the office of J. E. Sirrine and company, mill

Kingsport, Tenn.—Holliston Mills of Tennessee, Incorporated, manufacturers of book cloth, will open bids May 18 for construction of 2 new buildings about 530x75 ft., of brick and steel, monitor roof, part of one building to have second story; all similar in construction to buildings now used; will bleach all their own cloth both for Kingsport and Norwood, Mass., plants and finish about 10,000,000 yards of less expensive grades of book cloth here; Hollis W. Plimpton, of Holliston Mills, Norwood, Mass., head of new corporation; Charles E. Leonard, engineer, Kingsport.

Pacolet, S. C.—Dividends totaling \$170,000 were declared here today by the directors of Pacolet Mills, following their reelection by the stockholders at an earlier meeting. The semi-annual dividend of 3½ per cent on \$10,000,000 preferred and 5 per cent on \$2,000,000 common stock was declared. Among the directors present were G. H. Milliken and W. E. Winchester, of New York.

No curtailment has been announced at Pacolet and none is contemplated so far as could be learned today. No action was taken with reference to the New Holland Mills dividend, but a meeting probably will be held tomorrow by the directors at Gainesville, Ga.

Spartanburg, S. C.—Dividends aggregating \$270,250 were declared by directors of four cotton mills meeting here.

Four per cent semi-annual dividend on \$1,050,000 common stock was voted by directors of Laurens Mills.

Four per cent semi-annual dividend on \$2,000,000 common stock was voted by directors of Spartan Mills.

Three and one half per cent semi-annual dividend on \$3,000,000 common stock and 3½ per cent on \$1,000,000 preferred stock was voted by directors of Monarch Mills, with plants at Union and Lockhart.

Three and one half per cent dividend on \$350,000 preferred stock was declared by directors of Drayton Mill.

No dividend was declared on the common stock of \$250,000 by Whitney Mill Directors who, for the second time within the year, passed a dividend.

Cliffside, N. C.—Cliffside Mills is enlarging and remodeling its plant for the installation of 500 looms to manufacture ferry towels, and will erect a bleachery and finishing plant. Most of the required machinery and equipment has already been purchased. J. E. Sirrine & Company, Greenville, S. C., are the engineers. The building will be erected by day labor.

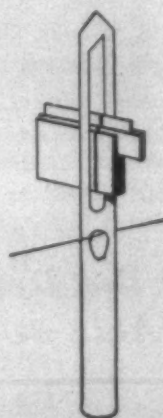
Plans for the enlargement, it is said, will involve an expenditure of more than \$625,000, while machinery purchases amounts to more than

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\$300,000. Additional machinery will be required later. A production of 40,000 towels per day is expected.

The proposed bleachery will be 200 by 60 feet, two stories, and the finishing plant 243 by 50 feet, three stories. Both structures to be of brick, as are all the Cliffside buildings. The present Cliffside plant is equipped with 41,144 ring spindles, 1,524 looms, dyeing, bleaching and finishing departments for the production of standard, staple and fancy towels.

Seneca, S. C.—The Lonsdale Company, one of the largest cotton manufacturing corporations in the country, will move 500 looms and 20,000 spindles from the Ann and Hope mill at Lonsdale, R. I., to its mill at Seneca, S. C., according to an announcement made at the headquarters of the company. When the additional equipment is installed the Seneca mill will have 1,000 looms and 40,000 spindles.

A weave shed will be constructed and the looms now at the Southern plant and those which will be sent there from Rhode Island will be housed in the new structure. The preparatory machinery will be installed in the main building of the mill. New homes will be built for the additional employees required to operate the enlarged mill.

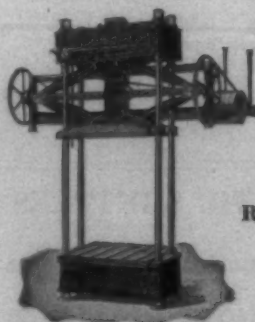
The Lonsdale Company, which has mills in Berkeley, Ashton, Lonsdale, Phenix and Hope, R. I., and Blackstone, Mass., as well as Seneca, is one of the oldest corporations of the kind in the country.

Soft Yarn Spinners Organized

Organization of the Soft Yarn Spinners Department of the Southern Yarn Spinners' Association was perfected at a meeting held in Charlotte last Friday. About 400,000 spindles were represented at the meeting.

Charles Iceman was elected president of the Soft Yarn Spinners' Department and the following were named on the Board of Governors: M. L. Cannon, A. M. Fairley, F. C. Sherrill, John R. Tolar. The president and the board were delegated with authority to make recommen-

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dations concerning operations, prices and business policies.

David Clark and John R. Tolar were named as a committee to meet with the committee of the American Cotton Manufacturers' Association in Greenville this week, this latter committee having been called to discuss ways and means for stabilizing the textile industry.

A discussion of market conditions at the meeting revealed the fact that spinners were unanimously opposed to accepting orders below the cost of production. It was the sense of the meeting that no yarn sales be made at prices less than the cost of production, plus a reasonable profit, and that in the absence of business at a profitable figure, curtailment should be promptly instituted.

A New National Chrome Yellow

Among the important additions to the list of National Dyes is the new National Superchrome Yellow 2G, a product yielding shades that are somewhat greener than the well-known National Superchrome Yellow GN.

The new type is distinguished by its excellent fastness properties, solubility, and level dyeing. It may be applied to wool by all three of the chrome dyeing methods, and in any type of dyeing machine used for chrome colors.

In dyeing worsted with cotton and artificial silks, the latter are left entirely clear, making this product highly desirable for fabrics with decorative effects.

National Superchrome Yellow 2G is preferably dyed by the after-chrome method and will be found equally useful as a straight color or for shading purposes. Product samples with full technical information may be obtained from any of the offices of the National.

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JACK WILKINS, Greenville, S. C.;
South Carolina Representative.



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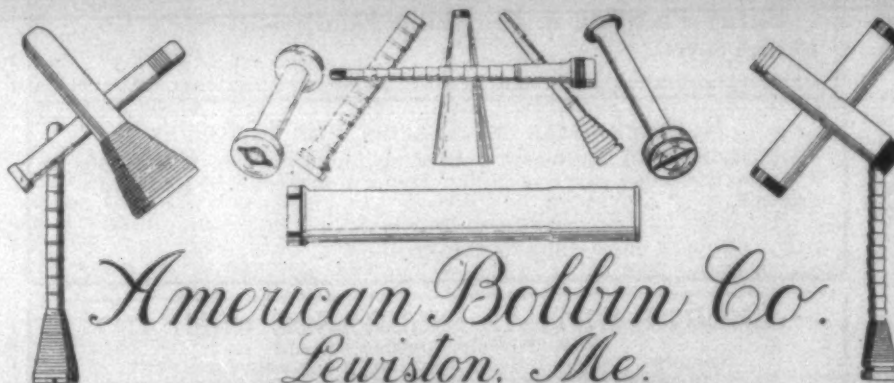
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Invents Pattern Change Device

An invention to control change of pattern and change from body to border weaves on such goods as towels, napkins, bedspreads, handkerchiefs, and similar fabrics has recently been perfected and patented by John L. Davidson, well known mill superintendent of Charlotte.

The device also controls the length of seamless bags. The weaving of seamless bags has heretofore been somewhat in disrepute, due to uneven lengths and consequent uneven measurement for grains. With this device it is said that bags can be consistently woven to measurements as small as one-hundredth of an inch.

With Mr. Davidson's device, the change of patterns and lengths can be made in a few minutes time, where now it takes several hours on some patterns. The device also obviates oily chain and chain heads, the oil from which is later transferred to the cloth from the loom fixer's hands.

The device is electrically controlled and the pattern chain, or more properly the pattern belt, can be made and attached by anyone capable of measuring cloth in inches.

The device consists of a belt running over the sand roll of the loom and one inch of the woven goods carries one inch of the pattern belt irrespective of the number of picks in goods.

All towel manufacturers are familiar with the trouble caused by weaving uneven lengths and Mr. Davidson's device is designed to entirely eliminate this trouble.

The patent rights on Mr. Davidson's device have been fully protected by a recent decision of the U. S. Court of Appeals in Washington, the case being handled by Robb, Robb and Hill, attorneys.

Social Workers End Convention

Greenville, S. C.—Re-election of Miss Belle Fuller, of Pacolet, as president, selection of other officers and choosing the University of North Carolina, at Chapel Hill, as the meeting place for the 1927 convention were closing features of the eighth annual session of the Southern Textile Social Service Association here Saturday.

In addition to Miss Fuller, other officers elected were: Miss Pearl Wyche, Greensboro, N. C., treasurer; J. M. East, of Spray, N. C., M. W. Heiss, of Greensboro, N. C., L. P. Hollis, of Greenville, and J. B. Roddey, of Rock Hill, executive committeemen.

Delegates were guests of the Greenville Chamber of Commerce for luncheon in the Poinsett hotel Saturday afternoon at 1 o'clock. After this meeting, at which Mr. Hollis served as entertainer, delegates left for their homes.

The morning gathering, in addition to the business session, included songs, devotional by Rev. S. A. Steele, of Mansfield, La., and ad-

resses by A. F. Legare, state sanitary engineer, and Dr. A. H. Hayden, state epidemiologist.

Dr. Hayden talked at length on communicable diseases.

Butterworth Buys Klauder-Welden Plant

H. W. Butterworth & Sons Co., Philadelphia, Pa., have announced officially that they have purchased the plant, stock, ground and equipment of the Klauder-Welden Dyeing and Machine Company at Bethayres, Pa., which went into the hands of the receiver in December, 1925.

The purchase of the plant by the Butterworth organization was made at the receiver's sale in Norristown, Friday, May 14th, before Judge Stinson, referee in bankruptcy. W. C. Bell was trustee.

Klauder-Welden plant, which will be known as the Klauder-Welden Division of H. W. Butterworth & Sons Co., comprises six buildings and embraces twenty acres of ground at Bethayres. The main building is 435 feet long by 45 feet wide, opening up to 140 feet wide at the end. All the buildings are iron and concrete construction. Complete iron and brass foundries are included as part of the plant.

H. W. Butterworth & Sons Co. will continue to operate the plant and as before, make skein machines, raw stock machines, garment machines, tubs, special machines for sulphur color, carpet yarns, machines for hosiery dyeing, also machines for dyeing, bleaching and scouring.

Mr. David Clark Addresses Carolina Council At Spray

(The Spray, N. C., Arrow.)

The meeting of the Carolina Co-operative Council on last Thursday, (May 6th) night at the Central Y. M. C. A. auditorium was well attended. The American Warehouse had the highest percentage of attendance and Spray Woolen Mill stood second.

Mr. L. W. Clark introduced the speaker of the evening, Mr. David Clark, of Charlotte, N. C., who made a very interesting and thoughtful address on the textile industry of the South. The speaker is the editor of the Southern Textile Bulletin, a practical mill man, and one who takes an active part in public affairs, particularly as they affect the textile industry.

He traced the history of the textile industry from Continental Europe to the British Isles and then to the United States. He showed that New England had developed as the greatest textile manufacturing center in the United States, but that on account of certain labor and climatic conditions the mills of the North are at present moving South. He was very optimistic about the future of the South in textiles and felt that the men in the textile industry here have a great future ahead of them.

Musie for this meeting was furnished by the North Spray Band.

Seaboard Air Line Railway

Oasis Temple Official Route for their Pilgrimage to Imperial Council Meeting,

PHILADELPHIA, PA.

June 1-2-3

Oasis Uniform Bodies to personally escort
Potentate LeGrande Everett of
Rockingham

Lv. Charlotte	2:00 PM.	Sunday, May 20th
Ar. Monroe	2:50 PM.	" " "
Lv. Monroe	3:20 PM.	" " "
Ar. Rockingham	4:35 PM.	" " "
Lv. Rockingham	5:20 PM.	" " "
Ar. Hamlet	5:35 PM.	" " "
Lv. Hamlet	6:05 PM.	" " "
Ar. Philadelphia	7:20 AM.	Monday, May 31st

Patronize Seaboard Dining Car Service

Diner parked with the train in Philadelphia, serving meals: Breakfast, 75c; luncheon, \$1.00; dinner, \$1.25.

Don't forget to visit Sesqui-Centennial Exposition, which opens on June 1st.

For further information, etc., apply to the undersigned.

J. E. McILWAINE

**Chairman Transportation Committee
Charlotte, N. C.**

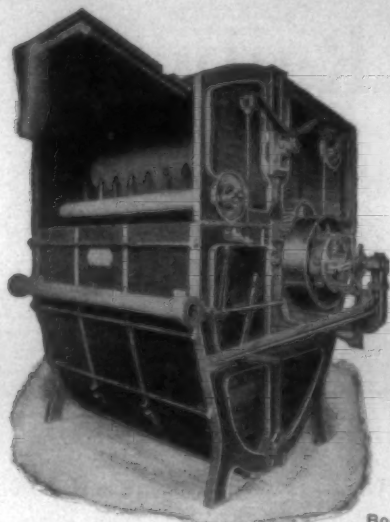
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53 Mill Street Orange, Mass.

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A starch that makes satisfied customers.
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N. C. Providence, R. I.
J. H. Almand, Atlanta, Ga.
P. G. Wear, Dallas, Texas

STARCH**CAUSES OF BAD SPINNING**

(Continued from Page 21)

to the end. A good grade of cloth and sheepskin should be used on top of leather rollers. Be sure it is of uniform size else it will cause bad running spinning. Rollers should be set the proper distance to suit the staple of cotton you are using. Roller bar tips worn should be taken out, for if one roller bar tip is worn and the other is not, the end of the roller tip that is worn will be too far from the middle roller. Although it may be worn but a fraction it will cause bad running spinning. All blunt or worn roving sticks should be taken out. Worn out stirrups rubbing against steel rollers should be removed. Worn saddles should not be allowed to remain. Weight levers that are worn causing weight to rest on board will make spinning run bad. Worn rings should be done away with. Travelers should be changed at least every two weeks. I found that to run travelers too long means bad running spinning. Also worn traverse rods, bushings, worn bolsters and worn spindles too cause the same trouble. Spindles should be plumbed in center of ring. All grooved guide wires should be taken out.

Bobbins should be set tight down on spindles. All worn bobbins should be taken out.

I have found that if the overseer looks after the little things the big ones will take care of themselves.

I know that oiling and cleanliness is the life of good running spinning.
"Boom."

Number Fifteen

I will try and write a few lines on bad running spinning, bringing out some of the causes and their remedies. We are assuming that the speeds, drafts, size of rings, condition of rings and the length of traverse, also gauge of frame is O. K., as the overseer has very little control of them.

Some of the common causes of bad spinning: Trying to get too much stock through the carding per card in order to keep up with spinning, not allowing the cotton to be properly cleaned. The next evil is soft roving or roving with not enough twist per inch to pull itself in creels without stretching, and I claim that this is the very worst evil we have. The next is roving being stretched by the frame hands taking up on ends, or in other words running their ends too tight. This usually shows up on the first few rounds of roving put on the bobbins.

If the creeler hands on speeders are careless and let short singlings get through, that will cause bad running spinning.

Now we will get in the spinning room and see what we can find.

Worn out roving skewers, causing the roving to be stretched in spin creels.

Rolls set too far apart for the length of staple being spun. Roving traverse not working, causing grooves in leather rolls. This causes the ends to come down. Travelers heavy or light will cause bad spinning.

Room not properly conditioned, that is, not enough or too much humidity, or windows open letting in too much air. This will cause bad spinning and lots of it.

Poor cleaning and oiling causes bad spinning.

Poor material and workmanship on leather rolls causes bad spinning.

Guide wires set too close to end of bobbins allowing end to drag on them.

Spindles out of plumb, frame not level, will make spinning run bad.

Poor judgment in handling and placing help plays a big part in running spinning.

On taking charge of a new job the very first thing I try to do is to win the respect and confidence of the carder, then if we are having trouble with our roving in any way we would have very little trouble in getting it adjusted. Co-operation between the department heads is half of the game.

Next I would check my roving skewers, roll setting, roving traverse, thread guides, and see that they were O. K.

Then I would check up on oiling, cleaning, travelers, humidity, condition of top rolls. I would also plumb spindles and scrub steel rolls if necessary.

And above all things try to win the respect of my help by living respectable among them.
Alabama.

BVC

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BARBER-COLMAN COMPANY

GENERAL OFFICES AND PLANT

ROCKFORD, ILL. U. S. A.

FRAMINGHAM, MASS.

GREENVILLE, S. C.

WARP TYING MACHINES HAND KNOTTERS**WARP DRAWING MACHINES****AUTOMATIC SPOOLERS HIGH SPEED WARPERS**

Production Statistics for March

The first step of the cotton manufacturing industry to bring statistics of its operations into the light for the benefit of all interested is represented by the appearance of such figures in the May number of the Survey of Current Business, issued by the Department of Commerce, which came from the press today.

This issue of the Governmental publication, containing statistics on a wide range of industries, includes for the first time figures on the production of certain cotton textiles as compiled from weekly and semi-monthly reports issued by the association of cotton textile merchants of New York.

Beginning last September, this organization has compiled from those of its members reporting such figures, statistics on production stocks, and unfilled orders of nine classes of cotton goods. It now has voluntarily placed the statistics at the disposal of the Department of Commerce for inclusion in the Survey of Current Business.

It is impossible to determine the percentage of total production in the United States represented by the figures appearing in the survey or the number of mills they represent. The chief value of the statistics thus presented is in month-to-month comparisons, assuming that the figures are secured from the same number of mills each month. In the table as presented in the survey of current business, monthly totals on production, as explained in a footnote, represent the four or five weeks falling within the month, while figures on stocks and unfilled orders are as of the week ending nearest the end of the month.

March figures, the latest month reported, show production of sheetings as 45,254,000 yards, which is lower than in January or February and compares with a monthly average production for the last four months of 1925 of 46,528,000. Stocks of sheetings at the end of March were 20,196,000 yards, which is lower than either January or February and compares with an average for the last four months of 1925 of 36,250,000 yards. Unfilled orders of sheetings at the end of March are given as 53,992,000 yards, which is lower than January or February and compares with a monthly average of 53,592,000 yards for the last four months of 1925.

Similar figures for other cotton cloths are given as follows in thousands of yards:

Print cloth. — March production, 65,553; stocks, 32,503; unfilled orders, 56,757; compared with a monthly average of the last four months of 1925 of production, 63,547; stocks, 21,018; unfilled orders, 91,913.

Pajama checks. — March production, 4,839; stocks, 1,242; unfilled orders, 22,352. Monthly average last four months of 1925 production 3,328; stocks, 2,253; unfilled orders, 18,443.

Drills and twills (40 inches and narrower): March production, 13,295; stocks, 18,394; unfilled orders, 8,446. Monthly average last four

months of 1925, production 14,769; stocks, 17,656; unfilled orders, 18,156.

Pocketing twills and jeans: March production; 3,092; stocks, 7,037; unfilled orders, 1,608. Monthly average last four months of 1925, production, 3,808; stocks, 5,161; unfilled orders, 3,788.

Osnaburgs: March production; 8,145; stocks, 7,523; unfilled orders 15,427. Monthly average last four months of 1925, production, 6,019; stocks, 8,001; unfilled orders, 6,055.

Heavy warp sateens: March production, 981; stocks, 1,201; unfilled orders, 906. Monthly average last four months, production, 1,249; stocks, 1,093; unfilled orders, 1,547.

Drills, twills, sheetings and sateens (wider than 40 inches): March production, 7,064; stocks, 3,250; unfilled orders, 12,435. Monthly average last four months of 1925, production, 5,904; stocks, 2716; unfilled orders, 18,194.

Colored goods: March production, 49,254; stocks, 120,036; unfilled orders, 56,580. Monthly average last four months of 1925, production, 45,168; stocks, 124,054; unfilled orders, 90,030.

Valley Waste Mills

(The Shuttle)

The Georgia Retail Furniture Dealers Association was extended an invitation to inspect the Callaway interests in LaGrange, particularly the Valley Mills Rug Plant which has had such a phenomenal growth in the past few years.

From a small beginning in 1922 with some dozen or more looms the Rug mill has grown until now the volume of business approximates half a million.

The new plant which cost \$300,000.00 is modern in every respect. Although no machinery has as yet been installed, work is progressing rapidly, and within a month's time the new plant will be in full operation, with O. S. Brock as superintendent.

The rugs manufactured by the Valley Mills have three distinctive characteristics: they are moderately priced, are reversible and have fast colors both as to light and water.

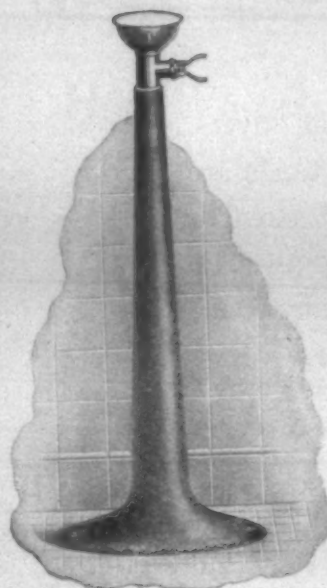
The Valtex rug which was the first manufactured is made of fibre and cotton and is adaptable for porches and for general wear. The color combinations are especially pretty. The soft brown rose, or the yellow and brown are quite effective.

The Vawami bath mats are very popular, being woven of cotton in the loveliest colors.

The LeVale Chenille rugs are probably the most beautiful of those made at Valley Mills. Made in the oval braided and the jacquard patterns they are the rugs that delight the home maker's love of the beautiful. Especially adaptable for bed rooms or living rooms their bright combinations make an especial appeal.

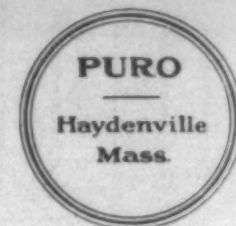
The Valley Mills products are sold direct to the retailer through the mills' representatives in practically every State in the Union, being directed by J. Frank Edwards, sales manager.

For
Rugged
Service



(Patented)

PURO PEDESTAL
Fig. 7



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Diamond Hosiery Mills, Tenn.
Easley Cotton Mills, Ga.

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Says the magician and the card vanishes

"SPOTSGO!"

Says the overseer and it's good-bye oil spot. SPOTSGO removes oil, grease and dirt from the cloth without the slightest effect to the fabric. Very simple action—just rub a little on the spot—no soaking, no waiting.

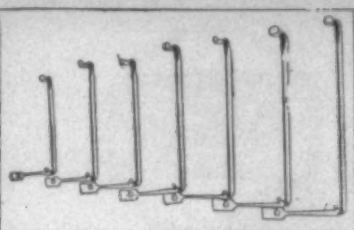
Why Not Write for FREE SAMPLE?

There's a Mill Supply Jobber Near You

Woodley Soap Manufacturing Co.

29-49 Norfolk Ave.

Boston, Mass.



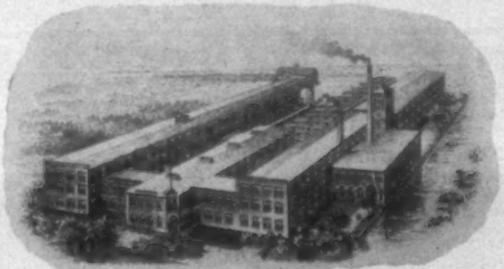
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Send us those old flyers. Whether the brass stands are off, sockets split or broken, or tub leg worn through, we can repair, reblock, balance and polish them like new.

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Samples and Catalog upon Request



No. E-4

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Dixon's Patent Reversible and Locking in Back Saddle with New Oiling Device, three Saddles in one, also Dixon's Patent Round Head Stirrup.



Send for samples to
DIXON LUBRICATING SADDLE CO.
Bristol, R. I.

Our Cotton Industry's History and Outlook

(Continued from Page 7)

crop; machinery of our latest type is also open to customers throughout the world, and it is a fact that the exportation of American cotton machinery has increased very rapidly during recent years.

Although, as stated above, the labor cost of making 28s warp yarn is given as \$.0734 per pound, representing about one-sixth of the total cost, we do believe that our nearest competitor, namely, England, will produce this material at a labor cost of \$.0367 per pound, or one-half our cost, for we must consider that the American mill operative and management is considerably more energetic, and is willing to work much harder to produce results, due to the absence of limitations on their individual effort, and largely from the fact that unionization limits considerably the individual efforts of the English mill operative, whereby our operative has more incentive to earn greater wages by means of higher production, in order to maintain the high standard of American living.

We believe that the balance is so small that by extra effort on the part of our selling houses and export agencies we can and will enter into the export markets and dispose of a larger percentage of our cotton manufactures in future years, and especially so in goods of lower counts, wherein the labor cost is smaller than in the case of high counts or finer goods.

Therefore, the present situation of the cotton industry has not, in our opinion, reached the point where we must reduce the number of our spindles, or stop the building of new cotton mills, for at the time of depression in our mills some thirty years ago, there were people who predicted that we had too many spindles in the country, yet, as stated above, we have increased the number of spindles from 20,000,000 to 38,000,000 during that period, and I feel safe to predict that in the next thirty years we will have at least 50,000,000 spindles in the cotton mills of the United States, which will spin not 65 per cent, but nearer 90 per cent of our entire cotton growing production.

I do not expect you will all agree with my predictions, yet the high individual labor cost has not prevented—THREE—Our cotton industry's HICred expansion in other lines of industry, for from practically nothing 100 years ago, we as a nation produce: Fifty-five per cent of the world's iron ore; sixty-six per cent of the world's petroleum; sixty-five per cent of the world's naval stores; eighty per cent of the world's sulphur; sixty-two per cent of the world's zinc; ninety per cent of the world's automobiles; eighty to ninety per cent of the world's radio supplies, and have 48 per cent of the world's gold reserves, while about 53 per cent of the world's saving bank deposits are credited to the American worker, and in 1924 our exports for the year amounted to some \$4,600,000,000 in value.

With these facts before us let us all take a greater interest and develop a greater enthusiasm for the American cotton industry, and educate and train our coming generation of young men and women entering our industry to realize the magnitude of the opportunities presented to them of filling the higher positions and assuming greater responsibilities, giving them to understand the natural advantage we possess in the growing of our raw material, and have them appreciate the value of higher technical training and the value of co-operative management; for there is not a successful firm in this country that would want to reduce the individual wage, or lower in any way the standard of living enjoyed by average American families. When we compare the homes of the industrious worker, a five or six-room house, modern conveniences, telephone, radio, automobile, movies and other places of amusement that we all can enjoy, with the single-room mud hut and unsanitary living conditions with practically no time for leisure of the Chinese, Japanese or Mexican mill operatives and other industrial workers, we cannot help but feel a sense of duty, and exert ourselves to give the best return for our labor, in order to maintain the highest position for the industry and country from which we obtain our livelihood.

The Indian Handloom Weaving Industry.

The steady if gradual decline in the hand-loom weaving industry in the United Provinces may be attributed, broadly, to three causes, says the Annual Administration Report of the Department of Industries for the United Provinces — increasing imports of foreign cloth, the rise in the price of yarn, and the competition of the local mill industry. It is by no means a case of the mills throttling the cottage craft, for the hand-loom weavers can compete successfully with the mills not merely in the production of fine fabrics, but also in the output of the coarser cloths. It is in the weaving of medium styles that mill competition is keenest, though there is actually little difference in the cost of production of the two units. The chief reasons why hand-loom weaving is not progressing are lack of organization and lack of marketing facilities. The Department of Industry proposes to take certain constructive measures to further hand-loom weaving. It intends to establish a number of aided weaving schools for the training of workers, to supply yarn to weavers at reasonable rates, and to provide marketing facilities by the adoption of special measures for assisting weavers' societies and other co-operatives to sell their goods.—Manchester Guardian.

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The Story of Cotton

(Continued from Page 8)

pure air, too often in dwellings built too hastily for either health or comfort. But these evils may be remedied. They have to a great extent been remedied and passed away. Manufactories are now well regulated, well warmed and ventilated. The operative is commonly better housed than the agricultural labourer, he has more advantages of education and mental improvement. Machinery no doubt has its use, and it seems to be this,—to enable men to produce what is necessary for the body, what gives it comfort and pleasure with as little expense of time, labour, care, thought, and capital, as may be, and thus to leave proper leisure for every person, not only for rest and recreation, but for cultivating the mind and the soul. With this hope the poet Wordsworth exclaimed,—

"Yet do I exult,
Casting reserve away, exult to see
An intellectual mastery exercised
O'er the blind elements; a purpose given,
A perseverance fed; almost a soul
Imparted to brute matter—I rejoice,
Measuring the force of those gigantic powers,
That by the thinking mind have been compelled
To serve the will of feeble-bodied man;
For with the sense of admiration blends
The animating hope that time may come
When, strengthened yet dazzled, by the might
Of this dominion over nature gained,
Men of all lands shall exercise the same
In due proportion to their country's need;
Learning, though late, that all true glory rests,
All praise, all safety, and all happiness
Upon the moral law."

CHAPTER VIII.

Modern Lancashire.

Did any one, when taking his first glance at Arkwright's water-frame Crompton's mule, or Dr. Cartwright's powerloom, foresee the effect these machines would have upon our manufacturing system? We cannot tell. Their power was soon felt. As soon as England was ready to spin and weave, without loss of time, as much vegetable wool was brought to her ports, that wool was brought in great profusion. Two million pounds had been imported in the year 1697. Seventy years later the quantity was doubled. The shores of the Mediterranean, the East and West Indies, and South America furnished this supply. Not till twenty years after this did any cotton come from the quarter which has since yielded us so much—the United States. Eight bales at last did find their way from that country to Liverpool. The custom-house officers did not know what to do with them, coming as they did from a place which had never supplied cotton before; and they actually seized them, declaring that the Navigation Laws were broken by sending them. This was the beginning of the cotton trade between North America and Great Britain, which has since been so enormous.

It did not however increase very rapidly at first. In the year 1794 only 348 bales of American cotton were imported into Liverpool, but from that time the growth was both rapid and steady. The planters of the Southern States learnt to cultivate the wool-bearing shrub, so as to bring to the greatest perfection its vegetable fleece, and with the long fibres, so strong and so silky. In the year 1859 more than 961,000,000 pounds of American cotton found their way to England, in addition to the continual influx from other countries, amounting that year to more than 264,000,000 pounds. A large and increasing export trade of manufactured goods was going on all this time from English seaports to almost every part of the world. In the year 1859 it amounted to 2,562,545,476 yards at a value of £37,038,538.

From these figures we may guess what was the marvellous growth of the cotton trade—a growth such as the world had never witnessed before. A branch of industry which in the year 1760 did not employ above forty thousand persons, eight years later employed more than a million. We may imagine the change that has been produced in Lancashire its chief abode. If we take a giant pair of compasses, and with Manchester as the centre, describe a circle of ten miles radius, we shall enclose the part of the country which has undergone most alternation. The whole district is like one large town, almost like one huge manufactory. And Manchester, 'the heart of the whole system, how shall we describe it? It is a city of vast warehouses, mills, and factories, bristling with tall chimneys, the streets crowded with vans, waggons, and trucks, all laden with bales of cotton, either in the raw state on their way from the warp to the factory, or in the shape of calicoes, finding their way from the manufactories to warehouses. A deep lead-coloured cloud may be seen several miles off hanging over the town, but from the smoke of the factories. In this metropolis of cotton a large amount of business is carried on, connected not only with its manufacture, but with the sale of it to the dealers, who convey or send it out to all parts of the world. This business is carried on partly in offices, but chiefly in a handsome building called the Exchange.

It may be well to mention here that an Exchange, that is a place set apart for buying and selling on a large scale between manufacturers and merchants, is necessary in a great centre of industry. This was felt by

Sir Thomas Gresham, the royal merchant as he was called, of the days of Queen Elizabeth. He had spent many years in Antwerp, then one of the principal mercantile cities of the world, and had observed how useful the Exchange was there. So when he returned to his native city of London, his first wish was to give his brother merchants the same advantage. He soon became Lord Mayor of London, and then he was able to do what he so desired. Queen Elizabeth gave him every encouragement in his undertaking. She opened in person the building, which she called the Royal Exchange, and then she dined with the noble-hearted founder. Now every town of any size in England has its Corn Exchange, where dealers buy grain in large quantities from the farmers who have cultivated it. It must be understood that an Exchange is not like a shop in which goods are kept for the sale. There is no need in this sort of business for the seller to exhibit his whole stock to the purchaser. It is only necessary for him to bring samples of them, and a bargain may be struck for a thousand pieces of calico, or as many quarters of wheat, when there was nothing to be seen but a few square inches of cotton cloth, or a few handfuls of grain.

We will not now stop to describe the cotton factories which are the peculiar feature of the place. Suffice it to say that there are more than two hundred of them in Manchester and the immediate neighbourhood. Enormous buildings some of them are, erected at a cost of from £80,000 to £100,000, and giving employment to as many as a thousand persons, men, women and children. And a strange sight indeed it is at noon, or in the evening, to see the living stream pouring forth at the sound of the bell from the factory gates, a dense crowd till it is lost in the smaller streets and courts of the city.

Ten miles to the north of Manchester lies Bolton, once the centre of the manufacturing district, though now it must yield the precedence not only to Manchester, but to Preston, Rochdale, and Oldham. Bolton has associations of its own quite unconnected with trade or commerce. It is endeared to the English churchman by the memory of that true-hearted royalist, James the seventh-Earl of Derby. This is not the place to tell of all he did and suffered for Charles I and Charles II; to relate how, after fighting by the side of this latter sovereign at the battle of Worcester, and guiding him to a place of safety, he himself was taken prisoner by Cromwell's army, tried, and sentenced to die in his own town of Bolton-le Moor; and how accordingly he was there beheaded, his face set toward the church, his lips uttering the words, "Blessed be God's glorious name for ever and ever. Amen. Let the whole earth be filled with His glory. Amen." Yet it is hard to speak of Bolton and not name her memorable earl.

As early mention of this place connects it with spinning and weaving. Leland, who wrote in 1552, says, "Bolton-upon-Moore market standeth most by cottons and coarse yarns. Divers villages in the moors about Bolton doe make cottons." We know of course that at so early a date the name of cotton only denoted a kind of woollen cloth used for coating, yet when the real product of the cotton-plant was brought into England there were spinning-wheels and looms at Bolton ready to receive it. To the warehouses of this place the chapmen and dealers used to flock from a distance, till Manchester attracted and drew them away. It will be remembered that Arkwright and Crompton were natives of Bolton or its vicinity.

Within five miles of Bolton, a little to the east, lies Bury, a town still more celebrated for its printing and bleaching works than for its cotton-factories. Yet it contains more than a hundred of this latter description of manufactory. Rochdale is almost as important a place, but the material most employed there is animal, not vegetable wool.

Oldham is perhaps the most characteristic specimen among them all of a manufacturing town, for the inhabitants still keep up the old customs in dress and manners, which are dying out elsewhere, though not yet passed away. The factory girls there still wear a tight-fitting pinafore shawl or handkerchief thrown over the head, while both men and women are shod in wooden clogs with brass buckles or clasps. These wooden clogs have been much worn in Lancashire since the Flemish clothiers came to reside in the country. They are not however like the "sabots," or wooden clogs now worn on the continent. The soles are of wood, the "uppers" of leather, shaped to the foot on a last. But they make a great noise on the pavement. A stranger arriving at Oldham, or indeed at any Lancashire town overnight, would be rather startled in the morning by the unusual clatter of feet, as the workpeople hurry off to the factories at the sound of the six o'clock bell.

South of Oldham lies a little knot of towns, Ashton, Staleybridge, Dukinfield, and Hyde, which show very remarkably the effects of the cotton manufacture in its recent development. Ashton, in the year 1775, contained five thousand inhabitants; in 1870, forty-one thousand. In 1748 Staleybridge was a hamlet of forty-eight houses, and a hundred and forty people, now it has a population of more than ten thousand. From "one dwelling-house and one chapel," Hyde has grown into a large manufacturing town, full of cotton mills, with more than ten thousand inhabitants; the same may be said of Dukinfield, then described as "pleasant country spot."

Stockport, a Chinese town, which has extended itself into Lancashire, with factories to be reckoned by hundreds, and a population by thousands, is included in this remarkable district. These towns, every one of them lying in the circle we spoke of, are all closely connected by railways and canals with one another and with Manchester. Whether they have any special features to distinguish them from one another or not, all contain cotton-factories, so that they may really be said to form one large workshop for cotton goods.

(Continued next Week)

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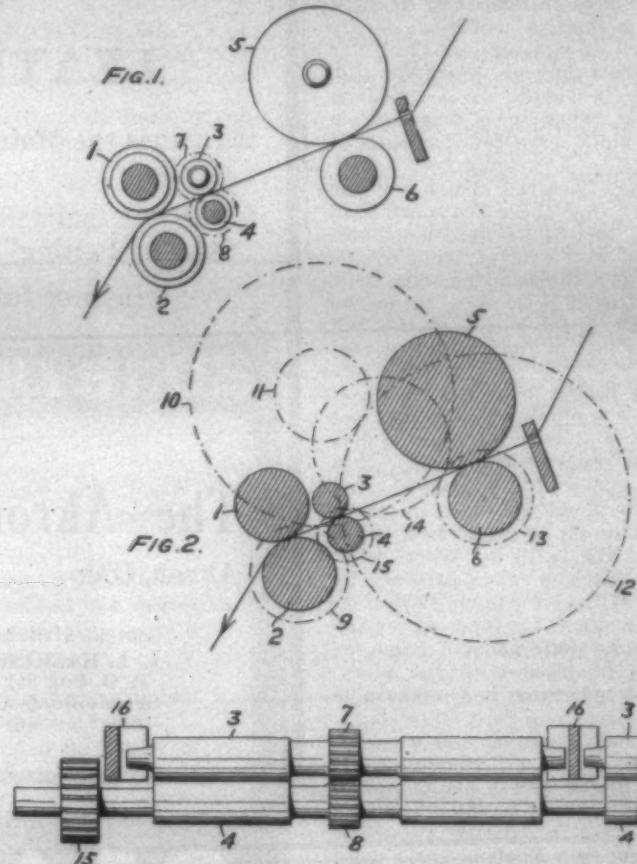
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Latsch Slip Draft Spinning

(Continued from Page 14)

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would do. It will be quite a saving in the labor cost and also eliminates two processes of machinery in your card room, which of course will be a great help in the starting of a new proposition. We figure with these advantages that it would pay any mill to use this slip draft motion of Mr. Latsch's, as it is the most up-to-date we have seen."



Middle Rolls and Cross Section of Latsch Slip Draft Spinning.

The Textile Field Promising One

The following article is taken from Industrial Educational and is issued by the Division of Education of Clemson College and it an interview with J. Marion Davis of Newberry, general superintendent of the Newberry Cotton Mills.

Mr. Davis is well known, throughout Newberry county and the State and is a very valuable man and is affiliated with quite a number of affairs for the progress of the city.

The article is taken from the April issue and is as follows:

J. M. Davis, general superintendent of the Newberry Cotton Mills, began cotton mill work as a lad in 1886, just two years after the first mill was built, and has rounded out nearly forty years of service in the same organization. Mr. Davis worked consecutively through the spinning, card, cloth, and weaving rooms, doing each task, holding each position from the humblest to that of general superintendent, which position he has filled very efficiently for many years.

Experience has taught Mr. Davis that any boy entering the textile industry must don overalls and become accustomed to sweat, oil, grease, and many unpleasant situa-

tions. Perseverance in overcoming many obstacles will so discipline a man as to qualify him for leadership. The "oil and sweat" method will eliminate the soft shells within a short time. A white collar job may yield greater returns at first, but returns in later years to an ambitious textile worker will greatly exceed those of the white collar worker.

As examples of mill boys who stuck through, Mr. Davis cited four who were apprenticed in his own plant as follows: General manager A. P. Hurt, Augusta; superintendent, R. J. Brown, Orangeburg; superintendent F. C. Graddick, Winder, Ga., and superintendent Tidwell of the Monaghan Mills.

Mr. Davis gave the following reasons why the textile field is now the most promising field of industry for a young man to enter in the South: 1. There is more capital invested in textile than in any other. Trained men are necessary to handle this capital and man its machines. 2. In the past the textile industry itself has overlooked the necessity of giving the necessary training for those entering. 3. Failure of plants to make money can often be traced to incompetent and poorly trained management. 4. Profitable production is the result of accurate knowledge of details both large and small

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by the management. Training alone acquaints one with details. 5. One with ability may always find opportunity for further training in the field of textile. 6. Unsettled conditions in the North point to more favorable conditions in the South. Climatic and labor conditions are much better in the South than in the North. 7. The greatest factor of manufacturing is really neither power proximity nor climate, but labor. The South is making citizens as well as cloth. Therefore, we may continue to expect an abundant supply of contented American labor in the South. 8. Finally, merit alone determines promotion in manufacturing perhaps to a greater degree than in most fields.

A young man entering the textile business to succeed should assume an attitude of open mindedness; should develop by reading, personal contacts, observation, and experiment; and finally, he should not envy the other fellow, but instead study his methods. In the textile industry new inventions are constantly coming out and the merits of such inventions should be studied. Successful producers seek to establish a close relationship between themselves and the firms delivering their goods to the public. A greater profit comes from satisfied customers. Keep abreast of the time and establish close contact with the commercial trend. Opportunity will surely come to him who is prepared.

Mr. Davis says much trouble has been occasioned overseers and superintendents because the presidents or other officials accepted orders for goods without first ascertaining whether or not such patterns could be made in the mill, and if such goods could be profitably produced. Profit per pound on cloth is deceptive. On the other hand, watch the profit per loom.

Concerning textile training, Mr. Davis states his approval by pointing out the fact that no man can rise by his own boot straps. He must seek help, instruction, and inspiration from those who have succeeded. Mr. Davis completed a correspondence course in 1895 which he says has been invaluable to him. Evening classes for day workers should be a part of every complete textile community's program. Only those advance who study to improve not only his trade but his general knowledge. A successful overseer must be able to man men as well as machines.

Application of Vat Dyes

(Continued from Page 10)

practice. The proportion of liquor to material was one in 20 and the dyeing temperature was kept thoroughly constant, the only variation being at the outside one or two degrees, which amount was certainly not going to influence the results. The liquor, after the operation, was poured into a small flask and the contents cooled by cooling the flask rapidly down to 18-20 per cent. The liquor was then carefully analyzed. The yarn which had been dyed was carefully squeezed of all liquor and allowed to oxidize and, as is done in

practice, thoroughly washed-off and soaped at the boil.

The apparatus employing a stream of an inert gas for determination of the hydrosulphite was not used since this process is not likely to meet with a ready mode of working in the usual laboratories, and therefore the titration using Knecht and Hibbert's process, was decided upon. Here titanous chloride is the basis of the analysis, and the authors gave the full details of this commendable method. For determining the amounts of caustic soda, 10 c.c.s. of a semi-normal solution of sulphuric acid were added to 10 c.c.s. of the vat liquor, boiled for five minutes and the excess of acid back-titrated with semi-normal alkali, using phenol phthalein as indicator.

Effect of Time on Shade Depth.

Dyeings were thus carried out in the identically same vat for different periods of 10, 30 etc., minutes up to one hour, and the various depths of shade obtained were compared. From the plotted curves, the relationship between the time factor and the hydrosulphite content, showed that dyeing at the usual temperature, of 60 degrees Cent., at the end of 30 minutes almost the whole of the color which the fibre could take up was taken up by the fibre, and even after an hour's dyeing the depth of shade was not any deeper.

Hydrosulphite Loss.

In the last 30 to 60 minutes, when no dyeing is taking place, there is a loss in the amount of hydrosulphite. In order to determine the cause of the loss in this hydrosulphite, tests were made allowing the vat to stand at 60 deg. Cent., for three hours and the loss which took place was found to be about 18.5 per cent per hour. It was noted that weak solutions of hydrosulphite were not so liable to show a big loss as more concentrated liquors. A more potent influence in effecting a drop in the strength of the hydrosulphite is the heat of the liquor. In one case, where the liquor was cold, there was a loss during 26 hours of only about 1 per cent per hour of hydrosulphite.

Effect of Temperature.

With regard to the temperature influence on the bath, it was observed that between the 45 and 60 deg. Cent., readings, there was a decided increase in the firmer affinity for the color in the bath, whilst at temperatures less than or over these limits, the absorption was relatively small.

At 45 degrees the dyeings were brightest, at 60 degrees approximately similar, whilst at 75 they were considerably dulled. At 30 degrees Cent., the difference in depth of shade was very marked. In all cases these temperature tests were carried out with a dyeing time of a quarter-of-an-hour.

These tests should prove of great use to those employing standing baths. It will be seen that where standing baths are left overnight there may be serious loss in hydrosulphite. Again where less than 10 per cent dyeings are being dyed a standing bath cannot be satisfactorily employed.—By the Technical Expert of the Textile Argus.

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Spartanburg, S. C., Clinton Cotton Mills, Clinton, S. C., Hermitage Cotton Mills,
Camden, S. C., Mills Mill, Greenville, S. C., Osage Mfg. Co., Bessemer City, N. C.

Cotton Goods

New York.—The past week has witnessed a tangible improvement. It has been only slight and in some directions not particularly noticeable but a somewhat better feeling has developed in gray goods. This has been evident in a few directions, even though prices on a number of styles show further easing. Print cloths, comparatively, have shown more resistance than most other goods.

It is said that leading branded lines of sheets, pillow cases, and 4-4 bleached goods have been taken in normal quantities by regular customers of most of the larger houses for summer deliveries wherever salesmen have touched thus far. Some lines are selling very moderately. In the gray goods division buying continues small. While curtailment of production is very extensive, it is not being entered upon in a number of cases.

As a rule the buyer has not changed his long-view attitude toward the market. What has happened appears to be that a number of users, finding an accumulation of actual needs, have been compelled to do covering for spot and nearby requirements. The result was the appearance of a larger number of orders in the market at one time than was true during the previous few weeks. On the other hand, the business has proved to be irregular, and while some centers will show an increased total for the week, others say they are not able to report any improvement. A few have had fair sales of specialties, particularly in shade trade and surgical trade goods, but little or no business in staples.

It is the opinion of some merchants that the pre-inventory sales staged by Claflins, and to continue next week, may be the turning point in stimulating summer distribution. The merchandise offered is new and all departments have prepared lines of closely priced goods that have come into their hands through the primary market liquidation of the past two months, brought on by the belated spring. Cotton and silk lines are especially attractive this season. Mere cheapness was not the motive behind the purchases that are now to be offered, an examination of the lines showing that selections have been dominated by the availability of the goods for immediate needs in consuming channels.

Merchants have been hearing from customers who are coming next week to look over these special sales and they think that the attendance will be so varied that the whole market will be helped by the movement in the largest secondary house in the trade here.

There has been a continued demand in the Fall River cloth market throughout the week for moderate sized lots of goods for spot or nearby delivery and some sales have been made on contracts extending through the next six weeks. As for the previous week the inquiry has been largely for the 36-inch low counts, with the sateens and twills being next in favor. The wider and narrow print cloth constructions have been rather dull.

It remains for the retailers to effectively deliver the message of the summer season to the consumers of this country. Even in the face of sluggish economic conditions, the time seems highly propitious for accelerating retail activity as far as ready-to-wear is concerned. Because of adverse weather conditions and widespread sickness, many stores saw their high hopes for profitable March and April business go glimmering. Women failed to do anything approaching the volume of purchasing expected of them.

Cotton goods prices were quoted as follows:

Print cloths, 28-in., 64x64s	5%
Print cloths, 28-in., 64x60s	5%
Print cloths, 27-in., 64x60s	5%
Gray goods, 38½-in., 64x64s	8½
Gray goods, 39-in., 68x82s	8½
Gray goods, 39-in., 80x80s	11
Brown sheetings, 3-yard	12½
Brown sheetings, 4-yard	10
Brown sheetings, stand	13½
Ticking, 8-oz.	221 a22
Denims	16½a17½
Staple gingham, 27-in.	9
Kid finished cambrics	8½a 9½
Dress gingham	12½a16½
Standard prints	9½

Yarn Spinners' Bulletin

The weekly bulletin of the Southern Yarn Spinners' Association says:

Conditions in the yarn market remain unchanged. There are no accumulations of stocks either in the hands of spinners, consumers or dealers. It is reported that consumers' stocks are lower than they have been for years, and the dealers have practically no stocks at all.

The spinners' policy of regulating their operations entirely in accordance with the volume of demand, and curtailing operations in the absence of orders has been responsible for the stabilization of the market, and has prevented wide fluctuations in prices. At present the lack of demand seems likely to continue for the next sixty days.

Already spinners are anticipating conditions and are curtailing their operations materially.

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The Yarn Market

Philadelphia, Pa.—It is generally conceded that consumers stocks of yarns are smaller than they have ever been in the history of the industry but the May volume of yarn buyers and of cotton goods manufacture has been smaller than some factors expected.

Consuming mills which customarily carry 200,000 to 300,000 pounds of yarn in stock or on order, are now down to 25,000 or 50,000 pounds in some instances. This means that there is a potential demand, but when it will begin to be filled is a question, and in the meantime, buyers are complacent over the outlook for getting supplies whenever they care to.

In the meantime yarn manufacturers in the South are curtailing rather than accumulate yarns and it is entirely possible that a situation may develop that means profitable business for the yarn mills.

Coarse carded hosiery yarns have again been reduced; tinged carpet yarns are a cent cheaper, and there has been additional shading of some of the carded warps, including a reduction to 38 cents in the dealers' quotation for 30s-2. There has been no change of any consequence in the relationship of supply and demand this week, but in parts of the list, the prolonged absence of active buying has caused a slightly larger accumulation of yarns on offer here. The latest reductions in yarn rates, therefore, reflect conditions which have existed for some time back, rather than uncovering any new source of weakness.

The price situation shows a good deal of irregularity.

Southern Two-Ply Chain Warps.		
8s	29	a29 1/2
10s	30	a30 1/2
12s	30	a31
16s	32	a33
20s	33 1/2	a34
24s	36	a36 1/2
26s	37	a37 1/2
30s	39 1/2	a40
40s	50	a52
40s ex.	57	a58
50s	67	a
Southern Two-Ply Skeins.		
8s	28	a
10s	29	a
12s	30	a
14s	31	a
16s	31 1/2	a32
20s	33	a33 1/2
24s	35 1/2	a
26s	36 1/2	a
30s	39	a40
36s	47	a48
40s	49	a50
40s ex.	56	a58
50s	65	a66
60s	74	a75
Tinged Carpet	3 and 4-ply	a27
White Carpet	3 and 4-ply	a31
Part Waste Insulated Yarn.		
6s, 1-ply	23	a
8s, 2, 3 and 4-ply	23 1/2	a24
10s, 1-ply and 3-ply	25	a
12s, 2-ply	26	a

16s, 2-ply	28 1/2	a
20s, 2-ply	30	a31
26s, 2-ply	35 1/2	a36
30s, 2-ply	37	a38

Duck Yarns—3, 4 and 5-ply.

8s	29	a
10s	30	a
12s	31	a
16s	32	a
20s	33 1/2	a

Southern Single Chain Warps.

10s	30	a
12s	30 1/2	a
14s	31	a
16s	31 1/2	a32
20s	32 1/2	a33
24s	35	a36
26s	36 1/2	a37
30s	39 1/2	a40
40s	a51	

Southern Single Skeins.

6s	29	a
8s	29	a
10s	29 1/2	a
12s	30	a
14s	30 1/2	a31
16s	31	a32
20s	33	a
22s	34	a
24s	35	a
26s	36 1/2	a
30s	40	a

Southern Frame Cones.

8s	28 1/2	a
10s	29	a
12s	29 1/2	a
14s	30	a
16s	30 1/2	a
18s	31	a
20s	32	a
22s	32 1/2	a33
24s	33 1/2	a34
26s	34 1/2	a
28s	35 1/2	a
30s*	36	a35 1/2
30s	36	a36 1/2
40s	43 1/2	a

*Tying In.

Southern Combed Peeler Skeins, Etc.—Two-Ply.

16s	51	a
20s	53	a
26s	58	a
30s	63	a
40s	65	a67
50s	70	a72
60s	75	a76
70s	85	a88
80s	1 05a	

Southern Combed Peeler Combs.

10s	40	a
12s	41	a
14s	42	a
16s	43	a
18s	44	a
20s	45	a
22s	46	a47
24s	49	a
26s	49 1/2	a
28s	50	a
30s	53	a
32s	54	a
34s	56	a57
36s	59	a
38s	60	a
40s	61	a
50s	69	a70
60s	75	a76
70s	85	a88
80s	1 05a	

Eastern Carded Peeler Thread—Twist Skeins—Two-Ply.

20s	48	a
22s	49	a
24s	50	a
26s	54	a
30s	57	a
36s	61	a
40s	68	a
45s	73	a
50s		

Eastern Carded Cones.

10s	35	a
12s	36	a
14s	37	a
16s	38	a
20s	41	a
22s	45	a
26s	47	a
30s	49	a

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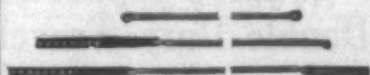
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WANT position as master mechanic. Twelve years experience and can give good references. No. 4886.

WANT position as superintendent of yarn mill, white or colored work. Have had 20 years experience on knitting yarn, mostly colored. Have held present place 12 years. Married, have family. Good references. No. 4887.

WANT position as roller cover. Have had 20 years experience in this work and can produce excellent results. Good references. No. 4888.

WANT position as designer or assistant superintendent in fancy goods mill. Graduate of textile college, 3 years in various departments. Good references. No. 4889.

WANT position as cloth room overseer by young man 26 years old, 6 years experience in dimity and fancy cloths. Excellent references. No. 4890.

WANT position as overseer spinning. Experienced and reliable man who can handle spinning room in efficient manner. First class references. No. 4891.

WANT position as overseer of weaving. Experienced on wide variety of looms and can keep room producing on economical basis. A-1 references. No. 4892.

WANT position as superintendent, carder or carder and spinner in yarn mill or plain weave mill. Now employed as spinner. Age 36. I. C. S. graduate. Good references. No. 2893.

WANT position as overseer weaving. Practical man of long experience and can get excellent results. First class references. No. 4894.

WANT position as overseer large card room or as overseer carding and spinning. Age 26, I. C. S. graduate in carding and spinning. Now employed as carder and spinner. Been on present job 4 years and will guarantee satisfaction. Could handle place as superintendent of small yarn mill. No. 4896.

WANT position as superintendent or manager. Practical mill man with excellent training in good mills. Would appreciate opportunity of corresponding with mill needing high class man. No. 4897.

WANT position as superintendent or overseer weaving in large mill. I. C. S. graduate. Qualified to handle either job. Good references. No. 4898.

WANT position as overseer weaving. Plain or fancy goods. Fifteen years experience, mainly on fancy goods. references. No. 4899.

WANT position as overseer weaving on sheetings, print cloths, drills, oansburgs, bagging, toweling, plain white satins or mohair. Have had 21 years in weaving, 5 years as overseer, 8 years as fixer and 8 as night overseer. Age 39, I. C. S. graduate. Good references. No. 4900.

WANT position as master mechanic or electrician. Experienced on both steam and electric drive, and can give satisfaction. Good references. No. 4901.

WANT position as overseer weaving, either plain or fancy work, and am experienced on dobby and Jacquard work. Now employed on job I have run satisfactorily for 3 years, but wish another place. No. 4902.

WANT position as overseer weaving. Prefer Southern mill. Now employed as weaver, 5 years on present job. Am giving satisfaction but wish larger place. Experienced on drills, twills, ducks, sateens, sheetings, towels, staple and fancy gingham. Twelve years as overseer, age 38. Married, sober, reliable and good manager. No. 4903.

WANT position as superintendent or overseer spinning. Familiar with tire ducks, cords, hosiery yarns and ply yarns. Can give best of references. No. 4904.

WANT position as superintendent of yarn or cloth mill. Long experience in good mills and would handle either place in satisfactory manner. Good references. No. 4905.

WANT position as overseer weaving. Long practical experience and can operate all makes of looms on efficient manner. Best of references. No. 4906.

WANT position as overseer carding. Would accept night job. Now employed as second hand. Age 33, and can give excellent references. No. 4907.

WANT position as overseer carding or second hand in large room, or night carder. Give first class references from present employers. No. 4908.

WANT position as overseer carding or spinning, or both. Practical, experienced man who has long record of satisfactory service. No. 4909.

WANT position as second hand in spinning. Have had 6 years in spinning. Age 21, married and can get results with help. No. 4910.

WANT position as roller coverer. Mill job preferred. Will go anywhere in South. High class workman. Best of references. No. 4950.

WANT position as overseer carding; 25 years experience, age 47, married and have family. Reliable, practical man who can produce results. Now employed. Excellent references. No. 4911.

WANT position as superintendent, or overseer carding or spinning. Have long experience as overseer and understand office work. Good references. No. 4912.

WANT position as overseer carding; 14 years experience. Making good on present job but have good reasons for changing. No. 4913.

WANT position as superintendent of small mill, or spinner in large mill. Long experience in good mills. Can come on short notice. First class references. No. 4914.

WANT position as superintendent. Now have superintendent's place, but wish better position. Experienced, reliable man of good habits and am first class mill man. Good references. No. 4915.

WANT position as bookkeeper, shipping clerk or office man. Age 28 and have had good experience. First class references. No. 4916.

WANT position as overseer carding or spinning, prefer spinning, but am good carder. I. C. S. course in carding and spinning; 19 years experience. Now employed but wish to change. Excellent references. No. 4917.

WANT position as superintendent. High class, educated man who has held high position with important mills. Now employed, but would like to correspond with large mill needing superintendent or manager. No. 4918.

WANT position as overseer of weaving. My experience covers wide range of fabrics and I can get quality production at the right cost. Excellent references from past and present employers. No. 4919.

WANT position as overseer carding and spinning or superintendent. Have had long experience as carder and spinner and as second hand and overseer. Competent reliable man of good habits. Good references. No. 4920.



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Clutch Spindles—
Fournier & Lemoine.

Coal Handling Machinery—
Link-Belt Co.

Combs—
Steel Heddle Mfg. Co.

Combs (Beamers, Warpers, Slashers)—
T. C. Entwistle Co.

Commission Merchants—
Easton & Burnham Machine Co.

Compressors (Air)—
Allis-Chalmers Mfg. Co.

Condensers—
Allis-Chalmers Mfg. Co.

Conditioning Machines—
American Moistening Co.

Conduit Fittings—
Chicago Fuse Mfg. Co.

Cones (Paper)—
Sonoco Products Co.

Cone Vice Couplings—
William Sellers & Co., Inc.

Conveying Systems—
Link-Belt Co.

Coolers (Air)—
—See Humidifying Apparatus.

Cotton—
Lesser-Goldman Cotton Co.
Stewart Bros. Cotton Co.
S. B. Tanner, Jr.
Wm. & York Wilson.

Cotton Machinery—
Ashworth Bros.
Barber-Colman Co.
Collins Bros. Machine Co.
Crompton & Knowles Loom Works.
Dixon Lubricating Saddle Co.
Draper Corporation.
Easton & Burnham Machine Co.
T. C. Entwistle Co.
Fales & Jenks Machine Co.
H. & B. American Machine Co.
Hopedale Mfg. Co.
Rodney Hunt Machine Co.
National Ring Traveler Co.
Roy & Son, B. S.
Saco-Lowell Shops.
Southern Spindle & Flyer Co.
Stafford Co., The
Terrell Machine Co.
Tolhurst Machine Works.
Universal Winding Co.
Whitin Machine Works.
Whitinsville Spinning Ring Co.
Woonsocket Machine & Press Co., Inc.

Cotton Openers and Lappers—
Saco-Lowell Shops.
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.

Cotton Softeners—
Arabol Mfg. Co.
Arnold, Hoffman & Co., Inc.
Bosson & Lane.
Hart Products Corp.
E. F. Houghton & Co.
A. Klipstein & Co.
National Oil Products Co.
Seydel Chemical Co.
Seydel-Woolley Co.
L. Sonneborn Sons, Inc.
Wolf, Jacques & Co.

Cotton Waste Machinery—
Saco-Lowell Shops.
Whitin Machine Works.
Woonsocket Machine & Press Co., Inc.

Couplings (Shaft)—
Charles Bond Company.
William Sellers & Co., Inc.
Woods, T. B. Sons Co.

Cranes—
Link-Belt Co.

Dobby Chain—
Crompton & Knowles Loom Works.
Rice Dobby Chain Co.

Doffing Boxes—
Rogers Fibre Co.

Doublers—
Saco-Lowell Shops.
Textile Finishing Machinery Co.
Universal Winding Co.

Drawing Rolls—
Metallic Drawing Roll Co.

Drink Fountains—
Puro Sanitary Drinking Fountain Co.

Drives (Silent Chain)—
Charles Bond Company.
Link-Belt Co.
Morse Chain Co.

Drop Wires—
Crompton & Knowles Loom Works.
Draper Corporation.
Hopedale Mfg. Co.
Mossberg Pressed Steel Corp.
R. I. Warp Stop Equipment Co.

Dryers (Centrifugal)—
Roy, B. S., & Son Co.
Tolhurst Machine Works.

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Cocker Machine & Foundry Co.
H. W. Butterworth & Sons Co.
Franklin Process Co.
Perkins, B. F. & Sons, Inc.
Rodney Hunt Machine Co.
Textile Finishing Machinery Co.

Dyestuffs and Chemicals—
Borne, Scrymger Co.
Bosson & Lane.
E. I. du Pont de Nemours & Co., Inc.
General Dyestuff Corp.
A. Klipstein & Co.
National Oil Products Co., Inc.
Newport Chemical Works.
National Aniline & Chemical Co.
United Chemical Products Co.
Wolf, Jacques & Co.

Dye Works—
Franklin Process Co.

Electric Fans—
Allis-Chalmers Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Electric Hoists—
Allis-Chalmers Mfg. Co.
Link-Belt Co.

Electric Lighting—
Allis-Chalmers Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Electric Motors—
Allis-Chalmers Mfg. Co.
Charles Bond Company.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Electric Supplies—
Chicago Fuse Mfg. Co.
Cooper-Hewitt Electric Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Elevators—
Link-Belt Co.

Engineers (Mill)—
—See Architects and Mill Engineers.

Engineers (Ventilating)—
Bahnsen Co.
Carrier Engineering Corp.
Parks-Cramer Co.

Engines (Steam, Oil, Gas, Pumping)—
Allis-Chalmers Mfg. Co.
Sydnor Pump & Well Co.
—See also Ventilating Apparatus.

Expert Textile Mechanic—
J. D. Hollingsworth.

Extractors—
American Laundry Machine Co.
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Fences (Iron and Wire)—
Page Fence and Wire Products Assn.
Wickwire Spencer Steel Co.

Fibre Specialties—
Roberts Fibre Co.

Finishing Compounds—
Arnold, Hoffman & Co., Inc.
Borne, Scrymger Co.
Hart Products Corp.
E. F. Houghton & Co.
A. Klipstein & Co.
National Oil Products Co.
Seydel Chemical Company.
Seydel-Woolley Co.
L. Sonneborn Sons Co.

Finishing Machinery—
—See Dyeing, Drying, Bleaching and Finishing.

Flat Wall Paint—
E. I. du Pont de Nemours & Co., Inc.
U. S. Gutta Percha Paint Co.

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Wood's T. B. Sons Co.

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Wood's T. B. Sons Co.

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Woonsocket Machine & Press Co., Inc.
Whitin Machine Works.

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Woonsocket Machine & Press Co., Inc.

Flyers—
Saco-Lowell Shops.
Southern Spindle & Flyer Co.
Whitin Machine Works.

Frames—
Steel Heddle Mfg. Co.

Friction Clutches—
Wood's T. B. Sons Co.
See Clutches.

Fuses—
Chicago Fuse Mfg. Co.

Garnett Roll Grinders—
B. S. Roy & Son Co.

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Link-Belt Co.

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Charles Bond Company

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Charles Bond Company

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Garland Mfg. Co.

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Washburn.
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Whitinsville Spinning Ring Co.
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Textile Finishing Machinery Co.
Whitin Machine Works.
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Victor Ring Traveler Co.
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A. C. Lawrence Leather Co.
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Rodney Hunt Machine Co.
The Whitin Machine Works.
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- Rolls (Metal)—**
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- Rolls (Rubber)—**
Rodney Hunt Machine Co.
- Rolls (Wood)—**
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Washburn.
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Woonsocket Machine & Press Co., Inc.
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—See Drinking Fountains.
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- Shafting—**
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Seydel Chemical Co.
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- Slasher Combs—**
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National Oil Products Co., Inc.
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United Chemical Products Corp.
Wolf, Jacques & Co.
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Seydel Chemical Company.
- Spindles—**
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Saco-Lowell Shops.
Whitin Machine Works.
Southern Spindle & Flyer Co.
Woonsocket Machine & Press Co., Inc.
- Spindle Repairers—**
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Fales & Jenks Machine Co.
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Whitin Machine Works.

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Seydel-Woolley Co.
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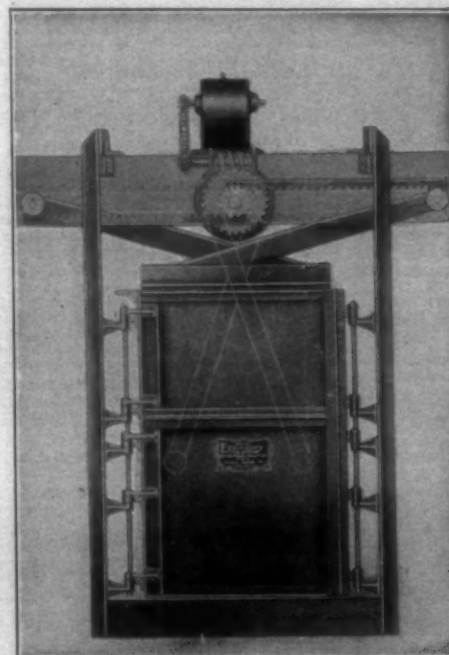
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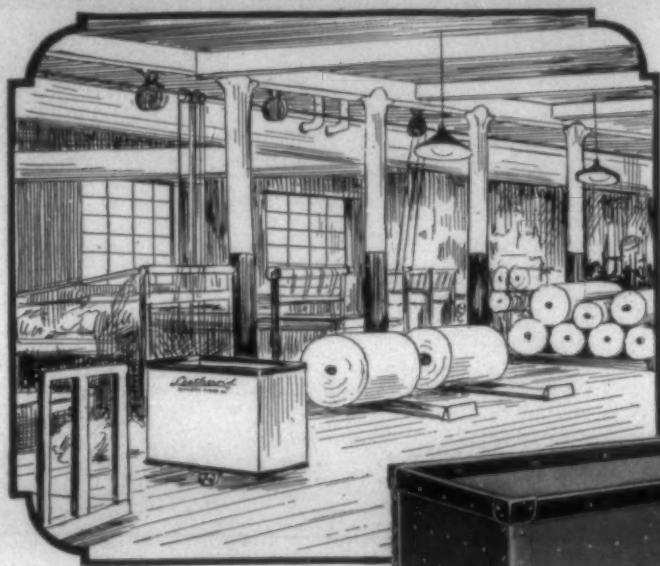
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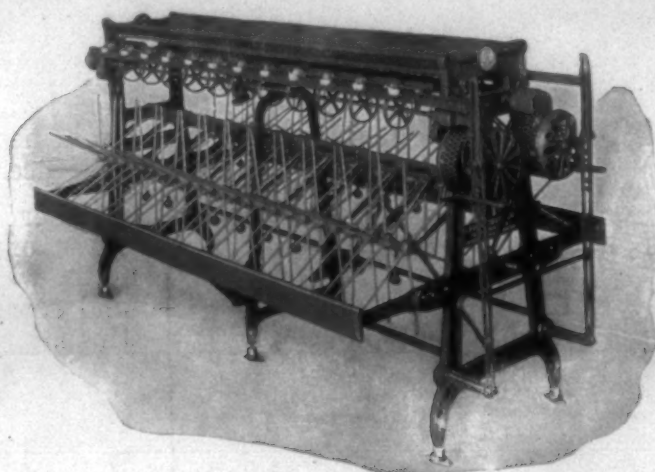
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